

eq

Breaking The Mold

Meet the Builders
Behind Squarefruit
Labs—3-D Printing,
Robots & All

Diversity In Tech
Startup Leaders
On How St. Louis
is Doing—And
How We All Can
Improve

STL Code Guide
From the Couch to
the Classroom, 18
Ways to Dive Into
The Coding Pool
This Season





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The Places We'll Go

This time last year, we were 30 days away from EQ's online debut. We envisioned Entrepreneur Quarterly (EQ) as an online daily and print quarterly publication that would fill a gap in St. Louis' media landscape: in-depth coverage about St. Louis' innovation community.

As we approach our one-year mark, we're excited to share it's been a big, busy year. It's been a big year for the region, too—our innovation districts are expanding, investment is on the rise and we're (happily) seeing more media coverage of the ecosystem all around.

At the same time, we're cognizant of the gaps. Where can we create the most value? We still believe that it's in sharing stories on innovating people, companies and initiatives in our region and fostering deeper connections in the space. We also believe we have more we can do. That's why, over the coming months, you'll see some new rollouts. We've evolved EQSTL.com, but look for more changes and resources to come.

We're thankful for our partners, contributors and readers for an amazing inaugural year and look forward to growing right along with the community in year two.

To borrow from this issue's Innovator to Know Stacy Taubman, "you can't be what you can't see." In keeping with this sentiment, our summer issue focuses on mentorship, education and inclusion in the ecosystem.

We caught up with GlobalHack as the team launches its youth initiative, we visited the LaunchCode Mentor Center to learn more about LaunchCode's partnership with Washington University School of Engineering & Applied Science and we tapped local leaders in the innovation space to grade St. Louis on diversity and inclusion within the ecosystem.

Earning stellar marks in other ways are the college entrepreneurs featured on p. 18. These students, currently enrolled at local universities, created successful startups while juggling coursework and social lives (Yes, entrepreneurs occasionally have free time—flip to p. 16 for proof!)

So taking our cue from graduation season, we toast to the class of 2016: the students, the accelerators, the founders, the hustlers. We can't wait to see what the future holds.

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eq

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Illustration: Adam Bertels



YOUR GPS TO ENTREPRENEURSHIP

Attend this year's conference to learn more about available resources and build relationships in the startup community

Missouri Venture Forum Roadmap to Entrepreneurship Conference

Monday, June 13 | 1-8 pm | Donald Danforth Plant Science Center

Register at www.roadmapjune13.eventbrite.com, or email pat@mfvstl.org

Learn more at mvfstl.org #RoadmapSTL

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eq Online

EQ is more than a publication; it's a community. Through news coverage, event listings, resource guides and features we strive to provide useful and inspired content for STL's innovation class. Join us online for daily content focusing on the city's entrepreneurs, investors, support organizations and more.



Hot Jobs

As our innovation community continues to grow, the need for quality talent will explode. Look for EQ's coverage of top startup job opportunities weekly and stay tuned for more resources to come for both job seekers and employers.



Resource Guides

St. Louis' startup community is always evolving. We've compiled guides to help you find your way in the ecosystem. Find our STL Coworking Guide, STL Funding Guide and Coding Resources online at eqstl.com/resources, and look for more guides rolling out this summer.



Startup Spotlights

How will locally grown apps change your life? How did the founders you know develop their ideas into winning business models? We tell the stories of how your favorite STL companies came to be, what they are up to now and what we can look forward to in the future.



Events Calendar

The best way to grow your ideas and meet potential collaborators? Show up to what's happening. With events almost every day of the week, let EQ's calendar be your guide to where to go. Submit your own events at eqstl.com/events to get them in our weekly events roundup.

Subscribe to EQ

EQ strives to be a voice for St. Louis' entrepreneurial ecosystem. With a mission to raise the visibility of St. Louis startups, we intend to tell stories that matter. Subscribe today and help EQ tell these stories.

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Let's Talk

You like St. Louis startups, we like St. Louis startups. Join us in the conversation:

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Sign up for our email alerts to receive our top online stories and the can't-miss startup events happening in STL. Sign up at eqstl.com/subscribe.

Charlie Beckwith photo courtesy of PluggedIn STL; BHIVE, photo courtesy of BHIVE; Kevin Taylor photo courtesy of Kevin Taylor; Mary Jo Gorman photo by Maria Frank.

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Thank you to our partners

EQ's mission is to raise the visibility of St. Louis and its startup ecosystem through storytelling. In this effort, we carefully curated a list of partners who share our vision of making St. Louis a destination for innovation. These groups have enabled the thoughtful stories in our pages of EQ and on EQSTL.com. We are thankful for their support of this project and of the startup movement in St. Louis.



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bizSESSION JER THORP: LIVING IN DATA

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Groups of 5+ and non-profit organizations can contact
Katie Carpenter at kcarpenter@cocastl.org or 314.561.4908 for discounted rates.



What is it like to live in data? To be a human in a world where every action is instrumented, where our jobs and our families and our love lives are increasingly quantified? In this session, Jer Thorp, COCA's Data-Artist-in-Residence, will share a series of projects by The Office for Creative Research which examine the fast-changing relationship between data and culture. From visualizations to performances and public art, Jer will explore ways in which we can bring data closer to humans. He'll also share details about his upcoming project the St. Louis Map Room, a collaborative data space for the city's residents to explore both public and personal geographies of the city.

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Gigantic Goals

T-REX is looking to increase its impact on St. Louis' innovation community. Here's why you should pay attention to its capital campaign.

Writer *Mary Mack*



T-REX, the Downtown technology incubator and co-working space, has attracted innovative companies and events for the past two years. Now, the T-REX team is looking to expand its reach with an \$8 million campaign, announced in April at the space's second birthday party.

"What that will do is help finish out raw and underutilized space within the facility, as well as address building systems that are near the end of their useful life," says Patricia Hagen, president and executive director of T-REX.

Broadening The Impact

The first phase of the project will see improvements to the first-floor lobby to make the entry more welcoming, as well as a complete renovation of raw and open spaces on the building's third floor to provide more space for startups.

"Right now we're planning an open-concept space utilizing moveable walls so we can be flexible with the companies we house and accommodate them as they grow in size," says Hagen.

The second phase will tackle the lower level, second floor, fourth floor and rooftop, renovating existing underutilized office spaces and conference rooms, as well as creating new production spaces and building out a rooftop patio. Hagen says they are cognizant of the types of sustainable, creative spaces in which the emerging workforce is highly interested.

"In many ways we are responding to the desires of a generation who will be the leaders of St. Louis in a very short period of time—if they aren't already," says Hagen. "The way they want to work and where they want to work—we all need to pay attention to these changes in our culture."

The growth of T-REX also directly affects the growth of the region: Many companies who begin at the incubator go on to set up larger offices Downtown, as well as throughout the county and in the region. Close to 200 jobs have already been created Downtown by T-REX graduates.

Through the Missouri Department of Economic Development, T-REX has already received \$2 million in donor tax credits, as well as \$200,000 from the Missouri Technology Corporation. The non-profit will be able to use those credits to encourage donations from philanthropic donors, who will receive state tax credits valued at 50 percent of their total donations to T-REX.

"T-REX has been an extremely important development for St. Louis and for Downtown," says Hagen. "I think that the St. Louis community will step up and help us create more spaces for the growing entrepreneurial movement here and show St. Louis at its best. We're already receiving national and international recognition for what we are accomplishing, but we can do even more, and St. Louis is a great city that deserves this effort. So let's get going!" —EQ

Save the Date:

Roadmap To Entrepreneurship

June 13 MVF brings together top St. Louis civic and business organizations at the Donald Danforth Plant Science Center for this event highlighting insights from experts and access to resources. See page 3 for more details. mvfstl.org

Distributed Trade

June 14 BTC Media and SixThirty are partnering on a first-of-its-kind forum focused on how blockchain tech could disrupt and optimize trade networks and financial services. Conference guests include representatives from RG&X, Thomson Reuters, MasterCard, Fluent, Gem and Ernst and Young. A 24-hour hackathon June 12-13 will award \$20,000 for the first-place winner, \$2,500 for the Thomson Reuters Challenge Prize winner and \$2,500 for runners-up. godistributed.com/trade

bizSession: Jer Thorp

June 23 COCA's data-artist-in-residence, Jer Thorp, returns to St. Louis to talk about his latest projects. The co-founder of the Office for Creative Research, and a data artist for the New York Times, Thorpe has collaborated with NASA and MOMA. See page 7 for details. cocabiz.org

Murmuration

September 23-25 From LouFest founder Brian Cohen and the Cortex Innovation Community comes a three-day festival that will bring art and technology together through talks from thought leaders, art competitions, cutting-edge music and more. murmurationfest.com

Photo by Wesley Low



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Creating an Inclusive Ecosystem

Nationwide, the need for increased diversity and inclusion in the startup space has (rightfully) gained more attention. The Equal Employment Opportunity Commission, the federal government’s anti-discrimination watch dog, recently held a rare public hearing to examine disparities. We asked local leaders in the innovation class to weigh in on what St. Louis is doing right and how the city can improve as we move forward.



Jennifer Ehlen
CEO, Prosper Institute & Managing Partner, PWE Startup Accelerator



Diana Zeng
Founding Executive Director, Full Circle



Yomi Toba
Cofounder/CTO, PushUp Social



Christy Maxfield
Director of Entrepreneur Development Services, CET



Patricia Hagan
Executive Director, T-REX



Dalychia Saah
Global Startup Competition Manager, Arch Grants



Colleen Liebig
CEO, PluggedIn STL



Dr. Cheryl Watkins-Moore
Director, Bioscience & Entrepreneurial Inclusion, BioSTL



Tomas Peña
Partner/CFO, S4



Jason Hall
Vice President, Entrepreneurship & Innovation, St. Louis Regional Chamber

From your perspective, what is the current level of inclusivity in the tech/startup community in St. Louis?

It’s improving, but we still have a long way to go. It only takes one trip to Venture Cafe or other startup event in the ecosystem to see that there is still a dominance of white men and St. Louis still ranks dismally for women entrepreneurs.

I’ve found it to be very welcoming. If you have the opportunity to discover the community, it’s open and inviting. But opportunity is a big part.

Efforts by Arch Grants, Prosper Women Entrepreneurs, and LaunchCode aim at introducing more diversity into the ecosystem, and they’re doing a great job at it. As a minority, I feel there’s a concerted effort to include us.

We have some diversity, not much inclusion and little equity. We are a lot like other tech/startup places in the country.

The desire for inclusivity is high; the level of diversity is not as high as we all hope to achieve. Many factors influence this, including higher education’s struggle to recruit and graduate minorities and women [in STEM] programs.

I do think there is a bias in our ecosystem that favors particular types of entrepreneurs or tech startups. We love Biotech, AgTech and all things Big Data. This does not necessarily make for the most diverse community.

There are strong indicators that we are becoming more and more inclusive on the talent front. It may not be evident that we have a diverse ecosystem, but we’re certainly moving the dial.

We are making strides in being more inclusive, but there is more work to be done.

I feel it’s very open. In my SixThirty cohort, we have a lot of people from all over the world. Nobody cares where you’re from; they’re just listening and ready to relate to you. I feel very comfortable in that sense.

As an openly gay man, I found a home where I feel welcome and evaluated by contributions. My colleagues in the startup community reflect diversity of age, race, gender and national origin. But we have a lot more work ahead.

What would a more inclusive ecosystem look like?

This is not a difficult formula: More women and minorities need to be sitting at the table as investors, receiving early stage capital, working on startup management teams and speaking as thought leaders and experts at events.

One that builds by building up St. Louis as a whole and is perceived to be inclusive both internally and externally.

I’d look for women and minorities as managers, executives, founders, board members and venture capitalists. If these positions are dominated by a handful of the same people, I’d assume the opportunities are limited to them.

People of color and women would be in leadership roles at all levels and would see themselves, their ideas and their values represented in the diversity of the ecosystem’s resources.

We need to work as a community at the elementary and high school levels to increase diversity in STEM fields. At the same time, we need to meet entrepreneurs’ needs in the areas in which we want to create new businesses.

An entry point for every entrepreneur, diversity among entrepreneurs, investors, gatekeepers and judges; less tokenism: are we burdening the same people to make sure that we have 1 woman, 1 person of color, etc in the room?

Leveling the playing field for women and minority investors, founders and employees requires intention and commitment and I believe we have the leadership in place to get there.

An ecosystem that includes more women, minorities and other under-represented groups, not just as employees but as leaders and mentors in our startups.

I feel that what is really important is that entrepreneurial drive. If you have a dream and you want to fulfill it, nobody should stop you because of your race or gender. That drive has to come from within.

An undeniable startup renaissance is taking place. We must insure that the full diversity of our community participates in this growth. We’ll be stronger by tearing down the walls that have historically divided us.

What are a few things that could be done to get there?

It has to start at the top. Leaders have to make diversity a priority or it will always be lip service and nothing more. Most importantly: we have to stop making excuses. “No one applied.” “We only want the best.” Not good enough.

Embrace St. Louis through our actions and mindset. Provide equity of opportunity at all levels. Work together as a local community.

The first step is to provide opportunities. The second step is to attract talent. The combination of the quality and quantity of available opportunities for everyone will lead to a healthy, inclusive ecosystem.

A Minority Concept Fund would help address the need for early stage funding and technical support for under-represented entrepreneurs. Leaders need to find ways to bake equity into their missions, programs and cultures.

More attention and assistance to minority startups and entrepreneurs in terms of capital and operations and more attention to STEM education and outcomes in traditionally underserved communities.

Targeted outreach for entrepreneurs, investors, gatekeepers; diversifying decision makers; increasing education and access to the ecosystem; making sure we’re not just diverse but that we are also inclusive.

Avoid the natural tendency of “birds of a feather flock together” when building your team. If you can learn how to work with different types of people and unlock that harmony, that’s where real magic can happen.

Making sure everyone in our ecosystem thinks about ways to ensure as many groups are represented as possible.

Everyone in this space goes to networking events because they want to meet people, so if you see someone who’s shy or not talking to anyone, go up to them and make that introduction. People want to connect in the ecosystem.

We must invest significantly more civic capital behind Arch Grants, GlobalHack, Venture Café, LaunchCode, ITEN, BALSA, PWE and so many other initiatives at the tip of the spear in making St. Louis more inclusive.

What are some wins that you’ve already seen that show we’re taking the right steps as a community?

Every time a Prosper Accelerator or Mastermind company receives an Arch Grant, an investment from Cultivation Capital, a spot in another accelerator or support from MTC, we are celebrating.

We genuinely want inclusivity to be a defining factor of our community. Efforts like Venture Cafe and LaunchCode extend a hand and invite people in.

The nationwide success of LaunchCode has been a big win and new collaborations like Maritz’s partnership with Capital Innovators show corporations are investing time and money in the growing startup ecosystem.

The biggest win is that we’re talking about it and finding ways to address the root causes of inequity. We have the BioSTL Inclusion Initiative and Prosper Women Entrepreneurs, but we have a long way to go.

One great example is the Network for Teaching Entrepreneurship, or NFTE. NFTE’s director, Angela Lewis, is working with teachers to serve over 500 kids in underserved school districts throughout our community.

Prosper Women Entrepreneurs and [BioSTL’s] Inclusion Initiative are doing great work around this issue. Arch Grants has made it a priority to target more diverse entrepreneurs, to diversify judges and to diversify our board.

Startups are hiring students with F1 visas—taking the chance on them, knowing they are up against the grueling and costly visa application process. We’re also seeing more females in leadership positions [across the board].

BioSTL and partner organizations who are focusing on inclusion by providing connections, resources and pathways for under-represented groups.

We have BioGenerator, we have Arch Grants, we have Arch Angels and other angel investors; it’s like a big shelf of opportunities and you have to go and reach for it.

The groups listed above and many others are part of the solution. I’m also a proud founding member of Hawthorn Leadership School for Girls in North St. Louis City. We’re the first all-girls charter school in MO with a STEM focus.

In your role as a leader in the startup space, how can you use your influence to further progress and make STL’s ecosystem more inclusive?

[Many] know I may shout at them on social media if I spot a homogenous event or [exec] team that could have otherwise been diverse. But if I don’t, who will? And the shout is always followed by an offer to help.

Introducing young talent to St. Louis early so they get to know it, become part of it, and care about it through not only their work but daily lives.

As a founder [I can] create an inclusive company and encourage other founders to do the same. There’s an abundance of talent and I would capitalize on the unique insight each person brings to our company.

I’ve made inclusion and equity central to CET’s work in service to entrepreneurs and the ecosystem by working to understand the problem and to change the thinking and behaviors that perpetuate the status quo.

Facilitate and participate in honest conversations about how best to encourage and support current entrepreneurial efforts by minorities and women and ensure the pipeline of talent development is robust for our community.

By being very intentional in targeting diverse startups. If we think of Arch Grants as bringing talent to St. Louis, I want to make sure that talent is diverse: women, people of color, immigrants, LGBTQ, veterans, ability status, age, etc.

We focus on helping women identify resources, and through our relationship with the International Institute, we include immigrants with advanced degrees in our talent pool and help them navigate the startup ecosystem.

I will continue to connect our resources, organizations and startup ecosystem to broader areas of our communities.

You have to build a sustainable business. You’re in the trenches and you select your team based on good vibrations, but you have to be very open when you hire.

I believe in walking the walk. My choices about where I invest my time, dedicate the Chamber’s resources, and the work I do reflect priorities. Inclusion is a cornerstone of the Chamber’s work and it is embedded in every choice we make.

Code For Days

Whether you're looking for a career change, to pick up a hobby or to expand on skills you already have, St. Louis has ample ways of tapping into helpful coding resources, regardless of age, skill level, interests or occupation. Crack the code below.

Coding Classes

Class Name	Cost	What You're Learning	Frequency	More Info
Blue1647	Free to members	HTML, CSS, Javascript, and GitHub	See website	blue1647.com
Codecademy	Free	Ruby, JavaScript, Python and more	On your own time	codecademy.com
Coding Dojo	\$7,500	Python, LAMP, MEAN, iOS or Ruby	20 weeks	codingdojo.com
Claim Academy	\$10,000	Java and .NET	Mon.-Fri. for 12 weeks, 60-70 hours per week	claimacademystl.com
LaunchCode	Free	CS50x	Every Tues. & Thurs., 20 hours per week for 16 weeks	launchcode.org
Savvy Coders	\$1,799	HTML, CSS, Javascript, and GitHub	5 days/week, 15 hours/week for 4 weeks	savvycoders.com

Meetups

Meetup Name	Location	What It Is	Meeting Schedule	More Info
Arch Rails	T-REX	A meetup for those interested in learning application development using Ruby on Rails	Monthly	meetup.com/arch-rails
Code Until Dawn	Various co-working locations	Coders, designers, startups, freelancers and more come to code all night.	Last weekend of every month	meetup.com/codeuntildawn-stlouis
Interactive Developers of St. Louis	Riot Games	A group for developers to discuss tools, tips and tricks of the trade	Second Tues. of every month	meetup.com/Interactive-Developers-of-St-Louis
LaunchCoder Girl	LaunchCode Mentor Center	An all-women, all-skill-levels coding meet-up	Every Wed., 6-8pm	launchcode.org/coder_girl
Open Data STL	T-REX	A volunteer brigade of Code for America working to address civic and community issues through open data and technology	Last Tues. of the month	meetup.com/Open-Data-STL
Savvy Coders	TechArtista	A meetup for beginning coders looking to network and explore a career in programming	Varies	meetup.com/Saint-Louis-Savvy-Coders-Meetup
STL Drupal Users	Missouri History Museum	A place to learn more about various topics related to Drupal, network and get support	Third Thurs. of the month	meetup.com/drupalstl
STL Ember.js	Various locations	A place to connect with other local Ember.js enthusiasts and front-end developers	Varies	meetup.com/STLEMBER
STL Python	Varies	A group for both seasoned developers and those just curious about the Python language	Monthly	meetup.com/STL-Python
STL Ruby	TechArtista	A place for Ruby beginners and experts to get together to talk, hack and drink	Fourth Mon. of every month	meetup.com/stlruby
St. Louis Full Stack Web Development	CIC	A group for those interested in learning how to create full-stack, scalable internet applications	Second Wed. of every month	meetup.com/SaintLouis_FullStack_WebDevelopment
St. Louis Java Users Group	CenturyLink Auditorium	A monthly meetup with presentations based on Java users' interests and needs	Second Thurs. of every month	meetup.com/GatewayGUG

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Redefining the Co-working Experience

Drawing everyone from freelancers and entrepreneurial startups to seasoned CEOs and Fortune 500s, co-working spaces are becoming a way to reinvent the work environment. Leading the way with its nationwide concept, Industrious is expanding throughout major cities across the US and celebrated one year in St. Louis this spring.

So what makes Industrious' brand of co-working space such a hit? Let's take a look.

A Perfect World

Do you work better on your own? Or does a constant buzz of activity keep you focused? Industrious St. Louis' sleek glass-enclosed offices give you the best of both worlds: privacy to be productive within an open and energetic office. Shut your door and get in the zone, or pop out to the common area to bounce ideas off other members or just clear your head. Picture your own private office in the back of your go-to STL coffee shop—that's the vibe you get with Industrious.

01 The St. Louis Industrious location is in the heart of Downtown St. Louis at 555 Washington Avenue. 02 Industrious St. Louis has attracted many fashion-focused companies to its space, including Hanger (pictured), Toi Box Couture and former member The Normal Brand. 03 The offices at Industrious allow companies to be a part of a community while still customizing their spaces to fit their unique needs and styles. Pictured: Mario Hunt of Empowered Strategy.



01



02



03

Those Who Wander

With 10 locations, membership at one Industrious location means access to all. Former member Wes Hoffman of Treehouse Networkshop took advantage of this perk when he hosted a lunch-and-learn at the Chicago location, making solid connections in a new city. "Whether it's getting your brand in front of a new audience or having a beautiful space with reliable, high-speed Wi-Fi to work from when you touch down in a new city, our national network is a unique piece of what we're able to provide our members," says Emma Dively, Industrious' St. Louis community manager. And with month-to-month agreements, Industrious offers the flexibility for a company to grow into a larger space within each city or jump to a new city altogether.

04 The 10 US locations, including Atlanta Midtown, pictured here, give members a home away from home. 05 Members meet in the lounge to eat, drink, visit and work.



04



05

Photography by Wesley Law; writing by Andrea Martin



06

Workplace Luxuries

Industrious has the free Wi-Fi, conference rooms and the typical office amenities you'd expect from any co-working space, but the cafe—and the specialty food stocked there—give them an edge. Each location partners with local coffee roasters, companies and restaurants to bolster city pride. St. Louis' location taps Blueprint Coffee and features roasters from other Industrious locations each month, while afternoon hunger is staved off thanks to pastries from local favorites Whisk, Black Bear Bakery and Vincent Van Doughnuts. There's also the ubiquitous co-working happy hour—not just limited to post-5pm—which is brought to workers through an ever-rotating keg of 4 Hands craft beer.

06 Local favorite, 4Hands Brewery keep members happy with regular keg deliveries of their craft brews.



07



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Meeting of Minds

One of the great things about Industrious is that not all members are cut from the same cloth, making it a perfect community for startups and traditional businesses alike. "Industrious is a little slice of paradise for me," says Geneviève Steidtmann of G Ink., a consulting firm focused on project management and communications. "It's an innovative space that's great to spend time in, and it allows me to have a 'home base' that's something

other than my home office, where distractions abound." In its first year in the city, Industrious' St. Louis location has members heading up apparel lines, tech startups, law firms and big-data companies.

07 Fashion label Toi Box Couture was the first member of Industrious St. Louis. 08 Members from different disciplines mix, mingle and collaborate.



08

Building Community

When you become an Industrious member, you also gain access to a social calendar. Whether it's a beer-and-popcorn happy hour (freshly served up from an antique popper on display in the cafe), a bloody mary bar, member lunches, or networking events, Industrious connects members to each other

and the startup community at large. Over the past few months, the St. Louis location has hosted AMA social media happy hours, a game night with Game Night Gear and Nerdy Networking with Super Heroines, Etc. and Nerd 4 A Living.

09 Kitchen hangouts are common.

Coworking Redefined

Whether you choose a private office or open co-working, members of Industrious' 10 national locations gain access to elegant spaces, an inspiring community and unmatched hospitality.

Industrious offers flexible leasing, so you can stay one month or 10 years, with the ability to grow your space as your team grows.

The St. Louis location boasts:

- 10,000 square feet of space in the heart of Downtown
- Month-to-month agreements
- Complimentary coffee, as well as artisanal pastries and beer from local favorites
- Fast and free Wi-Fi
- Concierge service
- Opportunities to meet and mingle with members of St. Louis' innovation class.

Industrious has 10 locations nationwide with offices currently in Atlanta, Brooklyn, Chicago, Columbus, Minneapolis, Philadelphia, Raleigh, Nashville and St. Louis.

To learn more:

visit industriousoffice.com, call 314.414.3386, or drop by the St. Louis location at 555 Washington Ave., Ste. 310, Downtown.



10

Location, Location, Location

"When Industrious was looking to move to St. Louis, we knew we wanted to be part of the innovation and tech scene that was developing Downtown," says Dively. "T-REX is doing huge things for this city in terms of incubating new companies and burgeoning entrepreneurs. It's been great to see our members attending their events and vice versa." There's also the draw of the neighborhood, which has recently welcomed the National Blues Museum and a slew of restaurants: The Kitchen Sink is just an elevator ride away, and just across the street is Gerard Craft's Porano Pasta, which is close to Pi Pizzeria and Taze Mediterranean Street Food. And if you're on your way in and see a line of hungry-looking people, you're probably passing by Sugarfire Smokehouse's newest location.

10 St. Louis member Hanger allows users to track their clothing through a cloud closet.



INDUSTRIOUS



Innovator to Know

Meet Stacy Taubman, owner and founder of Girls Dreaming Big and RISE Collaborative work space.

Writer Mary Mack

St. Louis native Stacy Taubman has always taken on roles that involve coaching young people: A gymnastics coach by 15 and the coach of the Kirkwood Pom Squad in her 20s, she worked as a high school math teacher while interning as a school administrator and counselor. Although she appreciated the chance to help others, no position ever felt just right.

"I knew there wouldn't be a job that fit exactly who I am, all of my training and what I wanted to do," she says. "So I thought, 'How do I create something that utilizes my passions and helps people?' At the end of the day, I feel the most alive when I am helping and giving back."

Just what became her passion project? Helping young women achieve their dreams. She left her job as a high school math teacher and created Girls Dreaming Big, a for-profit tutoring and life coaching company for young women that specializes in academic, social and emotional development. Sample initiatives include a service and sightseeing trip to Bali, one-on-one life coaching and an after-school program called Girls Dreaming Big Academy. The latter is kicking off in Atlanta for the 2016-2017 school year. But that wasn't enough for Taubman.

This past fall she launched a crowdfunding campaign for RISE Collaborative, a co-working space that doubles as a place for young girls to come in to work, collaborate and dream, with successful

women there to mentor them.

"Seeing all of the opportunities out there is game-changing—you can't be what you can't see," Taubman says. "If you're surrounded by these amazing women, you can think beyond your nose and realize you can have this bright, amazing future. Then, when you go back to dumb high school drama, it won't matter anymore."

With the goal of being open by later this summer in St. Louis County, RISE Collaborative will hold 12 private offices, a conference room and a classroom. Girls can get involved in the co-working community through internship opportunities, speaker series and networking events. Taubman has even enlisted a few for a teen advisory board that meets once a month to insure what RISE is doing is resonating with young women. "It has to have that cool factor," she says. "Teens will tell you what they want—you just have to listen to them."

Taubman credits her recent success to a bit of a role reversal: the mentorship she received from others in the St. Louis startup community. They include Mary Jo Gorman, Managing Partner of Prosper Women Entrepreneurs, as well as Scott Levine, Michelle Wiedman, Erin Joy and Jeff Cook. "I can't tell you how many people have helped me," she says. "I've learned everything completely by the kindness of people supporting me." —EQ

Out of the Office

Sure, entrepreneurship can be a 24/7 gig. But everyone has to eat, and we want to know what our city's innovation class is reading, how they de-stress and where they hang out. We asked Stacy for a quick run-down of what she does away from her desk.

Go-to coffee shop?

Kaldi's

And what's your order?

Small coffee with cream

One word to describe St. Louis right now?

Supportive

Book you would most recommend to someone?

Gifts of Imperfection by Brené Brown

Show you recently binge-watched?

Scandal

What are you currently listening to?

"Hamilton" the musical

Best meal in St. Louis: Where was it and what did you have?

My boyfriend Derek is a phenomenal cook. His chicken balsamic is great.

Hidden Talent?

Teaching Zumba

How do you de-stress?

Going phone-free and spending time with my boyfriend and family.

What is one skill you'd like to acquire?

Work-life balance

Photo courtesy of Stacey Taubman

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College Credit

For many, college is an extension of youth, but these students are utilizing their time in school to start thriving companies already gaining national attention.

Writer *Andrea Martin*



Andrew Glantz

Age: 21
School: WashU
Major: Leadership and Strategic Management; Entrepreneurship
Company: GiftAMeal

Premise: GiftAMeal partners with food banks and restaurants to distribute meals to those in need. Each time a user dines at one of the partner restaurants and uses GiftAMeal, a cash donation is made to a food bank.

Noteworthy Milestones: Signed Jimmy John's as the first chain restaurant on the app; signed on 32 Greater St. Louis area Applebee's restaurants; named one of the top three student startups by Student Startup Madness at SXSW; accepted into the Future Founders Fellowship; received a \$50,000 investment from Capital Innovators; named one of the top five student entrepreneurs at Miami's Global Student Entrepreneurship Awards; winner of WashU's RECESS pitch competition

Utilizing Resources: "Being in school has opened up WashU's resources to me and has also allowed me to directly apply course material to my business. I also have been able to meet with great advisers such as Emre Toker and Cliff Holekamp to better myself as an entrepreneur and hear their feedback on my ideas for the company."



Lachlan Johnson

Age: 20
School: Saint Louis University
Major: Entrepreneurship
Company: Trep-ology

Premise: Trep-ology is a two-part digital platform that teaches innovation and makes internalizing entrepreneurial skills literally child's play.

Causes for Celebration: Partnership and licensing discussions with nationally recognized educational organizations; more than 200,000 educators interested in teaching the curriculum; selected for SLU's 2015 Diamonds in the Rough Accelerator; pitched at SXSW; featured in an Entrepreneur.com article; filmed a pilot for a new show on a major television network

Parental Advice: "I love to quote my parents: 'Why not you?' Why not be a young entrepreneur? Why not graduate college and step into running your own company full time?"

Connecting with Mentors: "[At SLU] I've been able to go to the entire Center of Entrepreneurship and its director, Tim Hayden, for unbelievable guidance and support. Every silly question, disheartening bump in the road and slight success has been answered, overcome and celebrated with such ease."



Daniel Clerke

Age: 22
School: Maryville University
Major: International Business
Company: Enemy (a.k.a EnemyGG and Enemy eSports)

Premise: "[We are] pushing the exploding eSports industry forward through innovative player development and focus. We also want to provide the best games possible for the eSports fan base in terms of entertainment value."

Successes So Far: \$393,239 in winnings alone; 1st place, 2015 League of Legends NACS Spring Split (9-1); qualified for the NA LCS in 2015; 2nd place at the 2016 Smite World Championship; won the 2016 MLG CS:GO Minor in Columbus; currently 1st place in North America in the Smite Pro League (9-1)

Smooth Transition: "I have an absolute passion for competitive video games. I used to be a player, so moving to an ownership or general management position was a no-brainer."

Real Life Experience: "[It] allows you to apply what you are taught in the classroom as well as learn what cannot be taught in the classroom. Over the past year of being in eSports, I can comfortably say I have learned more tangible things than I have ever learned in a classroom in all my years of school."



Mohit Patel

Age: 28
School: UMSL
Degree: Doctoral candidate in cell and molecular biology
Company: Upaya Pharmaceuticals

Premise: Upaya is a startup pharmaceuticals company developing antibiotics to treat patients suffering from infections caused by antibiotic-resistant bacteria, commonly known as Superbugs.

Recent Wins: Named one of St. Louis Business Journal Top 30 under 30 Business Leaders of Tomorrow (2013); awarded UMSL's Student Inventor of the Year (2013); awarded outstanding Biology Graduate Student award

A Purposeful Process: "After we patented the technology, instead of waiting to graduate, I wanted to commercialize it. In 2013, Superbugs caused 2 million illnesses and [killed] more than 23,000 Americans. Performing the research along with business development adds value to both these processes."

Best of Both Worlds: "[School and work] go hand-in-hand. I plug in my research to the business to bring our technology closer to the market; other times I get constructive feedback from advisors and mentors that helps me further the research."



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Code Collaboration

How Washington University and LaunchCode are partnering to take on the tech talent gap in St. Louis.



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“Having this collaboration with WashU, where I can come in and have access to mentors, has made all the difference.”

Twenty minutes before class began on a Tuesday evening, the LaunchCode Mentor Center’s main instructional room was quietly filling up with early arrivals to the CS50x class, a 16-week, in-person version of the introduction to computer science class offered online by Harvard. The only things breaking the silence were the sounds of an arcade basketball game in the building’s entryway: swoosh, thump. Swoosh, thump.

Student Jarrod Sharp had arrived from his full-time job as a medical biller at a hospital in Belleville, Illinois and was preparing to be on his game for the 5:30pm class. He’d seen on social media that fellow East St. Louisan LaShana Lewis—who completed a LaunchCode program, eventually became a system engineer at MasterCard and then met President Barack Obama—and thought to himself, “Well, now you’ve got my attention.”

Solving a Problem—or Two

Created by Jim McKelvey, co-founder of Square, in 2013, Launchcode exists to address both the issue of overwhelming unemployment and a giant tech talent gap. Through partnerships with hundreds

of companies, LaunchCode has helped set up on-ramp apprenticeships that look more at your aptitude and professionalism and less at your credentials and college degree. 90 percent of LaunchCoders have no previous programming experience, yet 90 percent of LaunchCoders are offered a full-time job at their company post-internship.

In one year alone, the program has resulted in 140 new computer programming jobs in St. Louis and more than 1,000 people in the region utilizing the educational programming offered.

Forging a Partnership

For the course in which Sharp is enrolled, Washington University’s School of Engineering provided funding for current undergraduates to serve as teaching assistants, supplementing lecturer Doug Shook’s lessons. Ron Cytron, professor of computer science and engineering at WashU, added LaunchCode mentoring to the list of possible assignments for TAs last fall. “There was a nice, strong response. LaunchCode is viewed as cool, and there’s an infectious enthusiasm about it, which spills over into getting others to participate,” he says. “There were

Story by Tanya Yatzek Photographer Wesley Law



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01 Zach Lou, LaunchCode’s education director 02 Washington University in St. Louis students Nikki Lagaro (left) and Ari Spilo (middle) mentor a LaunchCode CS50x student at the LaunchCode Mentor Center on Delmar Blvd. 03 Aaron Bobick, PhD, Dean of the School of Engineering & Applied

Science at Washington University. 04 Students in the CS50x course meet at the LaunchCode Mentor Center for lectures and one-on-one mentorship. 05 Dr. Doug Shook, Wash U professor, lectures the weekly course. His TAs have the opportunity to serve as LaunchCode mentors.

some preconceived notions about mentoring adults—that it was scary. As they’ve been doing it though, they’ve found it wonderfully rewarding.”

Ari Spilo, a junior majoring in computer science and finance, is one of the lead TAs. “Fifteen students come every Tuesday and Thursday,” he says. “After the lecture, the students work to increase their familiarity with the concepts before trying the lab projects. We roam the lecture hall and help with the labs.”

Fostering Leadership

According to Aaron Bobick, dean of WashU’s School of Engineering & Applied Science, LaunchCode presents two distinct opportunities for the university. First, it offers TAs a way to get off campus and engage in the community. “Washington University undergrads are a remarkable collection of people,” he says. “They are a deep and capable group, and providing them with the opportunity to learn what it takes to teach different types of folks aligns with the notion of producing a broader graduate.”

Spilo, who embodies the kind of undergraduate to whom Bobick is referring, got involved with LaunchCode through his studies with Cytron and says that the TA program is an asset to LaunchCode’s coursework. “One of the things the LaunchCode students struggle with is getting help outside of the general lecture. There are materials available online, but I don’t see that as sufficient as having time outside of class to get help. We provide actual students that can help and talk them through at a deep level,” Spilo says.

With a limited technical background, Sharp says his coding journey has been

made much easier by having access to the TAs. “First, they’re very intelligent,” he says. “They study advanced concepts, and I’ve yet to stump any of the WashU mentors. It’s a very diverse range of people, but I like how they’re different. You could talk to three different mentors and get three different answers, and they’re all correct. You learn more than one way of doing things.”

LaunchCode CS50x student Amy Wallhermfecht agrees that having the additional help from the WashU TAs has been important for her success in the course this spring. She received a Ph.D. in history from Saint Louis University in 2014 but has been discouraged by the increasingly limited academic job market. To catalyze a career switch, she attempted to complete the course through the edX website last year but got stuck.

“I kind of hit the wall both in terms of accountability and my schedule with other things,” says Wallhermfecht. “I had made it through the first three problem sets, but having this collaboration with WashU, where I can come in and have access to mentors, has made all the difference.”

Extending the Reach

The second opportunity presented by LaunchCode for WashU, according to Bobick, is to contribute to the field of computer science education. “Ron Cytron knows more than most about computer science education,” Bobick says. “It’s been a focus for him because of the increased enrollments in computing and teaching computing to non-computer scientists.”

“Washington University has an introductory computer science course that’s met with a lot of success and that’s been taken by a lot of different types of stu-

dents,” says Cytron. “I thought, ‘Why don’t we try to use that as another vehicle to get students ready for jobs at LaunchCode?’”

A version of Cytron’s introductory class will be offered this summer through LaunchCode and will go into more computational depth than CS50x. Cytron says, “The Harvard course provides a sampling of five to six different languages; this is a tasting menu.”

Witnessing Change

Zach Lou, education director at LaunchCode, is seeing a lot of what he’s worked for come to fruition with the WashU collaboration. A 2012 WashU graduate with a philosophy degree, Lou got involved with LaunchCode as a volunteer in 2013 and hasn’t looked back. “The CS50x class was the thing I was most passionate about. Being a part of it—witnessing the transformation people went through—made me want to continue to make those sessions a part of what LaunchCode does,” he says.

When asked why he supported the collaboration project with LaunchCode, Bobick referred to what he calls the “Five R’s”: research, reputation, revenue, really cool and the right thing. “Sometimes, you do it just for the last R,” he says. “I know that in some circles, LaunchCode is thought of as a community-driven effort for social good, but there is a part of it that’s a much more fundamental economic question that has to do with retraining people with skills aligned with today’s market needs. The world has shifted in terms of passions and opportunities. Washington University being part of helping with that realignment is also an interesting and worthwhile engagement.”

Aaron Bobick photo courtesy of Washington University

Programming the Future

How GlobalHack is working to keep the next generation of entrepreneurs right here in St. Louis.



01

"I think you're never really too young to learn how to program," says Matthew Sauer, a member of a team of high schoolers that competed in GlobalHack V last fall. "Once you learn how to read, that's when you can learn how to program."

During the weekend-long competition, Sauer's team built a program to help people understand government fines and how to address them—taking the top high school award and third place overall. Their project underscores two of GlobalHack's recent objectives: encouraging St. Louis' youth to learn how to code and building products that solve real-world problems.

The Beginnings

GlobalHack was founded by three local entrepreneurs: Juristat's Drew Winship, Venture Café's Travis Sheridan and LockerDome's Gabe Lozano. They had a clear goal in mind: Creating a tech culture that centers on products and talent—not companies. To grow as a leader in tech innovation, St. Louis needed a healthy talent ecosystem that pointed entrepreneurs toward products first, not funding.

So how do you prove to programmers looking to be the next Steve Jobs or Jack Dorsey that their first step shouldn't be writing a pitch to catch venture capitalists' attention? In 2013, GlobalHack decided that providing teams of talented people the opportunity and resources for rapid product development in a hackathon format might be the key. Hackathons are multi-day events where teams of designers, programmers and entrepreneurs rapidly develop their product idea into a functional prototype. Teams are pushed to get a product to market during the event so they can get feedback from both mentors at the hackathon and customers in the marketplace.

"We wanted to change the culture around how to start a tech company," says Matt Menietti, executive director of GlobalHack. "Founders don't need to obsess over writing the perfect business plan. Instead, the focus should be on building products and getting them into the market. If we can get more entrepreneurs to transform their ideas into functional prototypes, the tech community will benefit because we're going to produce more viable companies in our ecosystem."



02

01 Matt Menietti (right) has served as executive director of GlobalHack since 2015. Michael Palmer (left) joined the team in 2016 as director of youth programs. 02 GlobalHack's hackathons



03

have awarded more than \$275,000 in cash prizes. This fall, GlobalHack VI will host its first-ever \$1 million hackathon. 03 GlobalHack "Design-A-Thon" youth programming at MICDS.

Building a Farm System

From GlobalHack's perspective, a healthy tech ecosystem needs three ingredients: a steady stream of skilled talent, a culture rooted in building actual products and a density of smart people with systems that help them succeed. With the hackathon program already addressing two parts of that puzzle, this year's GlobalHack is turning its focus to creating a feeder system to engage young people in computer science and give them the tools and opportunities they need to develop.

"We need more people who will start companies and more people who know how to write software—and that starts with home-growing talent in our backyard," says Menietti.

Menietti sees a parallel between what the St. Louis Cardinals have done with their farm system and what GlobalHack looks to do with their youth initiative. Following the 'coding as a sport' outlook, GlobalHack will launch a formal league in the 2017-2018 school year, using competition, coaching and skill training to enable young coders to become the rock stars of St. Louis' next generation of tech talent.

Leading the charge is Michael Palmer, who joined GlobalHack this year after founding Code Red Education in 2013, a company that helps schools get the resources they need to teach programming skills to their students. An educator for 13 years, teaching from kindergarten through college, Palmer has a knack for explaining computer science in an accessible way, like using penguins to describe cybersecurity and insects to talk about the behavior of malware and data collection.

"I love the idea of looking at the world as this kind of beautiful contraption that we created," says Palmer. "And that's what tech allows us the ability to do. We can create things; we can master a space, alter it and develop it."

Palmer sees real, practical opportunities for students in learning how to program—as well as a wealth of untapped potential just beneath the surface.

"We get told, 'Tech is the new foreign language. The world is made of code,'" Palmer says. "No—what's amazing about it is that it's like telling somebody, 'Hey, there's a gold deposit 100 feet from you, and you only have to dig a foot down, and you start seeing gold right away.' That's how readily available it is."

A Vision for the Future

As GlobalHack builds its competitive coding league during the next few years, it will forge relationships with schools and communities and expand programs designed specifically for students, including youth hackathons and code nights. But measuring success remains complicated, because unlike baseball farm systems, there aren't stats to prove the impact. Instead, GlobalHack must track participants and keep an eye on how many students stay in the computer science field to gauge the effect their efforts are having. The markers will largely be anecdotal and cultural, but the student who stays after school to learn how to write back-end systems in Python and the entrepreneur who pulls all-nighters to ship a working prototype will impact the tech culture more than hard numbers ever could. —EQ

A Million-Dollar Idea

GlobalHack wants to help solve civic problems, not just spawn the next tech industry giant. From Oct. 21 to Oct. 23, GlobalHack VI will herald that shift in a big way as the largest civic-focused hackathon in the world. With 2,500 participants attempting to solve a critical civic technology problem while competing for a prize pool of \$1 million, the organization hopes to inspire a world-changing product and shine a spotlight on St. Louis as a major player in the tech landscape.

GlobalHack VI is just one of three hackathons ever organized with a \$1 million prize pool. Several civic organizations have stepped up to back the hackathon with Saint Louis University's John Cook School of Business signed on as the title sponsor. The massive awards, along with ongoing mentor and training programs, is GlobalHack's way of saying this event isn't only a three-day commitment.

Similar to past events, GlobalHack's team will focus on providing an intense and memorable experience for its participants, many of whom will be coming from out of town. Their hope is that the energy from GlobalHack VI continues well beyond the closing ceremony.

"We want to ensure whatever is built at GlobalHackVI doesn't just sit on a shelf," says executive director Matt Menietti. "We can have a lasting impact by allocating the resources necessary to implement the best solutions generated at the hackathon—and that starts with providing real incentives for individuals and teams to work with us on the implementation piece."

Head to GlobalHack.org to for more information about the event and to register to participate.

Thinking Inside the Box

At Squarefruit Labs, they're creating products in ways no one else is—one layer at a time.

*Writer Amy De La Hunt
Photographer Wesley Law*



C

Chico Weber's hand runs along the colorful, 3-D-printed objects lining the shelves in his company's Central West End office before settling on a chain mail mesh. As he talks, he shifts it absently from hand to hand.

A few feet away from the shelves is a bank of 3-D printers that look like small microwaves without doors. Across the room is a larger 3-D printer, the showpiece of the workshop. The Squarefruit Labs team assembled and programmed it themselves. But simply using 3-D printers isn't what makes Squarefruit Labs unique. Instead, its edge comes from the way the company uses the printers to make things other companies need.

Weber himself will tell you that he's a hands-on builder in a tech-startup world, which makes him a bit of an anomaly. The coding and server side of the business is important, of course, and his partner at Squarefruit, "BK" Bolisetty, is the IT guy. But it's the actual printing of tangible stuff that makes Weber's eyes light up.

Manufacturers, Not Makers

Additive manufacturing—laying down successive layers of material to create an object—lets companies breeze past some of the barriers they run into using traditional techniques like machining and die casting. Because computers control the process, it's easier to automate, and it lets engineers and designers go beyond existing limitations with techniques and materials.

Weber describes his business as having two parts. The part that pays the bills is essentially a consulting business that offers rapid prototyping, which means using 3-D printers to create everything from

hydroponic gardening systems to actuators for controlling motors. The second part—this is the inspiring one for Weber, the one he feels gives the company a true competitive advantage—is retail sales of actual products. Think robots, furniture and clothing.

To do 3-D printing well, a company like Squarefruit needs expertise in photopolymers, optics, lasers, manufacturing, industrial design, mechanical and electrical engineering and software development. Not only does it need to understand the end product and its uses, it needs to be successful at data transfers from the designer. Finally, if the prototype is successful, the company needs to deliver the information to the end manufacturer. Weber's bachelor's of science in manufacturing engineering from Southern Illinois University Edwardsville gives Squarefruit a leg up here and so does Bolisetty's master's degree in industrial engineering, also from SIUE.

This summer, the duo will officially venture into retail sales for the first time with a robot they're calling Persona. The spherical case, printed in one 14-day run in the big printer, is designed to house circuitry and components to make it a personal, mobile droid (alternatively, it could be called an unmanned vehicle or simply a personal assistant).

"The number one question I hear is, 'Can it go fetch a beer?' And it can!" said Weber, laughing. He explained that the six articulating legs that carry the sphere let it do things like pick up objects and perform repetitive tasks—and, yes, fetch a beer. It will also have cameras, Wi-Fi, speakers and other functional components for which enterprising customers can find their own creative uses. Weber says the robot will be an open-source software model, so people will be able to come up with their own apps and individualize how they use the robot for retail, public safety, office or home settings.

Weber also has plans to upgrade Squarefruit's large printer in the coming months by shifting from the current tech-



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01 Chico and BK built a large-scale 3-D printer in their studio to accommodate the production of their robot and furniture. 02 Squarefruit Labs has partnered with TechArtista for Squarefruit Studio, which is adjacent and connected to the Central West End co-working space. 03-04 Squarefruit Studio is decorated with miscellaneous 3-D printed objects. 05 Weber and Bolisetty plan to take their robot, Persona, on a North America tour once it is completed.

nology, which melts spools of plastic to inject tiny lines that layer together, to ultraviolet curable resin. The switch would increase their printing speed to an inch per hour, meaning they could print two robots per day, while giving them smoother, more durable results. "It's a huge leap in printing technology," Weber said.

Set Up for Success

Working on Persona during the past year and a half has challenged Squarefruit to continue to refine and streamline its printing capabilities. It's been a long learning process, and it hasn't always gone according to plan: Some delays were related to changes in the end product itself and others brought about by the company's decision to fund its R&D through sales rather than investors.

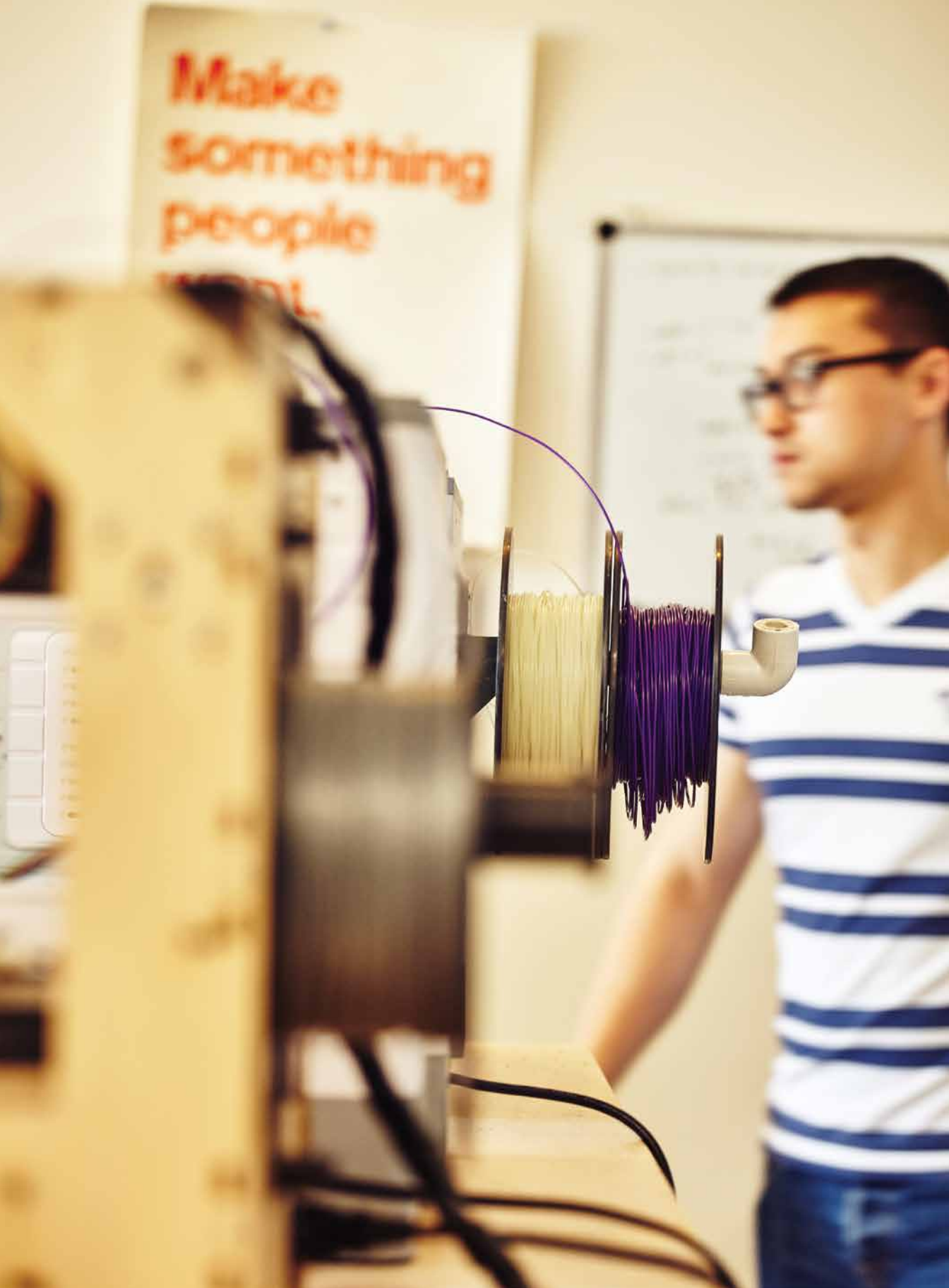
"We would have launched earlier if we were just doing one robot," Weber admits. And, he adds, "It's always harder for a hardware company to get off the ground because there's a different level of overhead."

But the upside is that their business model allows them to service a lot of companies simultaneously and collaborate on big projects with multiple partners. This helps make up for the scarcity of similar prototyping companies in the St. Louis area. On the east and west coasts and in Europe, 3-D printing already has an established scene, which makes everything from price comparisons to product testing easier. Plus, if a company rises above the competition, more people are aware of it.

For now, the main movement on the local scene is TechShop, a membership-based chain that offers industrial-grade equipment for 3-D printing as well as woodworking, welding and more. It opens in August in the Cortex district for entrepreneurs, hobbyists and anyone else who wants to make stuff.

Before he became a professional who builds things, Weber was an avid hobbyist, first with Lego and K'nex sets, then with the tools in his grandfather's basement

"It's always harder for a hardware company to get off the ground because there's a different level of overhead."



Chico Weber, co-founder of Squarefruit Labs, is a native St. Louisan who studied manufacturing engineering at Southern Illinois Edwardsville. Both he and business partner BK got involved with 3-D printing at SIUE, with one of their more memorable initial projects being 3-D printed chocolate.

shop. Eventually, he was on Rockwood School District's robotics team. "They were not award-winning machines by any means," Weber recalls, "but I definitely learned a lot that still applies to me today."

His knack for sketching led him to learn CAD software so he could design more realistic-looking product sketches. In college, he gravitated toward manufacturing, where his interests, he says, were energy systems and figuring out better solutions through design. As his thoughts turned more toward ways to make cheaper wind turbines and less to his coursework in manufacturing systems, "I became a B and C student," he laughs. "I was focused on the business." His professors noticed and encouraged him to pursue his own direction.

Although companies like his could be perceived as a threat to traditional manufacturing, Weber says that hasn't been his experience. "Others in industry see it not as a competitor but as a way to streamline their process," he says. "If they don't have to go through the traditional injection molding process, it opens up opportunities because manufacturing costs less."

Sustainability and Scalability

Additive manufacturing requires a great deal of precision, just like traditional manufacturing, but the risks are lower because the costs are lower. Squarefruit's main expense are motors, but plastics play an important role. It means "it's a few hundred dollars to get a prototype instead of tens of thousands," Weber says.

For example, one of the leaders in 3-D printing, GE Aviation, recently started using an additive process to make nozzles for jet airplanes. Each one is built in 20- μ m-thick (that's micrometer) layers from a bed of cobalt-chromium powder. Laser beams hit the powder and melt the metal alloy in tiny increments.

This use of a powder plus a liquid "glue" or binder is yet another type of 3-D printing—one that Weber has experimented with himself. In fact, his senior design project at SIUE involved a much tastier powder: chocolate.

The examples go to show the vast range of possibilities for end products. They also provide a little more context for the company's name: Weber compares 3-D printing to "growing" something inside a cube—and it could actually be something edible, sort of like the square watermelons Japanese farmers perfected by growing them inside boxes.

Because the bulk of Squarefruit's business is in consulting, they never know quite what will come at them next: Both the end goal and the level of precision a customer can provide up front vary. "It depends on the client and how much they've already developed before bringing it to us, which can be good or bad," Weber said. "Sometimes they send fully designed components, but we can't use them. It might have to do with file format, or sometimes the tolerances aren't set up for complex assembly. Some can't be edited. Some need to be redesigned."

Weber said it's almost better if a company comes with just an idea and collaborates on the design. This is what happened with a longtime partner, Beloved Streets of America, and its local group of nonprofits who are working on hydroponic urban "farms" to grow fruit and vegetables outdoors to fight food deserts. "They don't have an engineering background, and that's why they hired us," he says.

"I know how to grow things in the ground when they're in season," Weber jokes, but the challenge of mastering all the variables intrigued him. He got to know the industry through the process of designing and printing the intricate modular boxes where the plants would grow as well as the sensors to determine things like soil consistency, minerals, moisture and oxygen levels in the air.

The hands-on engineer was just as enthralled with the results as anyone else when they finally got some basil and tomato plants to survive. Now, they've grown wheatgrass, parsley, cilantro and more, and they're working with restaurants in the Central West End who might

"Squarefruit is about 'growing' products in a way that is more attractive, efficient or appealing—taking what nature provides and redesigning it."

want to add the produce to their menus.

Making parts for a sustainable, scalable urban garden might seem totally unrelated to making parts for jet engines—but it's not. Weber thinks most industries share the same desire to tackle source-related issues. "They're looking for cheaper ways of producing solutions," he says. "The best way to move forward in new types of manufacturing is taking a 3-D printer and using it as a replacement to traditional manufacturing or as a supplement to it."

At age 26, Weber is already a recognized expert in his field. He has spoken to groups like the Midwest Manufacturing Leaders, who are also well aware that other areas of the US—and the world, for that matter—are ahead of our region when it comes to dynamic clusters of cutting-edge manufacturing companies. But because the St. Louis region has seen a downturn in traditional manufacturing, especially over the past six years, the time might be right for a shift.

Weber isn't advocating for 3-D printing cars, at least not yet. But he does point out that there are plenty of opportunities amid economic challenges because they open the door to creative thinking and new perspectives. Even the name of his company gets at this mindset, he says. "For us, Squarefruit is about 'growing' products in a way that is more attractive, efficient or appealing—taking what nature provides and redesigning it." —EQ

Funding Fashion

Saint Louis Fashion Fund, one of STL's newest nonprofits, cites Simplify Commerce as an integral part of its success.



One of the biggest challenges of running a nonprofit is raising the funds needed to execute on its mission. That's currently the case for the Saint Louis Fashion Fund, which, with its new executive director, Eric Johnson at the helm, is working to keep St. Louis in the conversation when it comes to fashion destinations.

"There is a perception by some within the design community that you need to be in cities like New York or Los Angeles in order to build a successful fashion brand," says Johnson. "Of course, those cities are great and always will be, but our goal is to show that fashion can exist—and thrive—outside of those cities."

Founded in 2014 by a group of St. Louis fashion business leaders, St. Louis Fashion Fund works to support emerging designers and promote fashion outreach and education. Its current focus is a fashion incubator Downtown, which would bring jobs and talent to St. Louis and provide startup designers with the funding and support necessary to thrive.

The incubator recently announced

its criteria for designers "casting a wide net" for the right fits, says Johnson. The ideal company has several years' history, receives orders and is currently going into a phase where they need the unique tools and mentorship that STLFF's incubator would offer. Johnson envisions a cohort system where brands operate out of the incubator over a two-year tenancy period before graduating.

But all things cost money.

Right now, STLFF is in the middle of a \$2 million capital campaign, which will cover \$500,000 in capital costs and three years of operating expenses. As of press time, they're nearing the \$1 million mark.

"Like any business, we need sufficient capital to execute on our plans," says Johnson. "Without appropriate funding, we're like a designer without thread."

Any nonprofit can relate to at least some of these issues: waiting on checks to arrive, making sure online donations can be made securely and navigating transaction

Photography by Wesley Law; story by Krystin Arneson

fees for online donations. It's no wonder that in 2014, online donations represented only 10 percent of total giving, according to the Network for Good's Digital Giving Index. "Nonprofits are spending their time doing good and often don't have the expertise in payments, which is where we come in," says Keith Ingenthron, manager of strategic partnerships at Simplify Commerce by MasterCard.

Discovering the Need

Before STLFF made the switch to Simplify Commerce, the organization was having trouble with the backend payment system on its website, says STLFF executive director Kathleen Rogers. Donors were limited to a menu of donation amounts, and there was a significant delay transferring money into the account. "There seemed to be a lot of snafus that were slowing things down and making us look unprofessional," says Rogers.

Simplify Commerce took care of those issues. "We've created our platform so that nonprofits like Saint Louis Fashion Fund can quickly set up an account, get special nonprofit pricing and start accepting donations that same day," says Ingenthron.

The partnership had existed for a year, at first to assist STLFF with online ticket sales to its annual gala, but it grew thanks to Simplify's easy-to-use and versatile system. Now Simplify is the organization's official "Friend the Fund" donation engine.

"Our challenges are mainly in trying to accomplish a lot with a lean staff," says Rogers. "When we have to spend time sorting out issues with online payments, that's precious time that could be devoted to other things like fundraising and recruiting designers. We love the ease and simplicity...it makes all of our jobs easier."

Simplify Commerce also offers the "highest levels of security," according to Ingenthron, and has the added benefit of being backed by MasterCard—an institution that customers making substantial donations via a very intangible Internet like to see. However, the platform prides itself on remaining "invisible" to the public: It's 100 percent branded to the client, a feature he says helps nonprofits continue to build their own brands, rather than direct customers to a third-party website.

Then there's the all-important cash flow aspect: Ingenthron says that Simplify can get donations into the bank account



in two business days. For nonprofits and for-profits alike, that time can make or break the business.

These features helped facilitate an important donation from Levi's, a key sponsor for the upcoming STLFF gala who donated online. Rogers said that they originally had a complicated vendor system that was slowing things down—and it took more than a few emails to sort out. "But when we suggested using Simplify Commerce with a credit card on our website, it was easy and immediate," says Rogers. "The sponsor was able to quickly and painlessly go online and fulfill their donation, which was a huge help to us."

Simplify will continue to help drive STLFF's growth—which can only mean good things for the city and the talented fashion designs the incubator will soon host.

"What is very exciting to me is the chance to be part of the renaissance taking place in the city of St. Louis," says Johnson, a St. Louis native who returned from NYC to head the fund. "I feel that the city—and often the Midwest region as a whole—can be overlooked as a place for innovation and entrepreneurship, not to mention anything about fashion and design. There's a lot taking place here, but it sometimes flies under the radar, so I'm excited about the possibility of the incubator being a tool by which to spread the word about all of the positive things happening in St. Louis."

In photo: Anjali Kamra of Rungolee and Jimmy Sansone of The Normal Brand, two leading St. Louis fashion businesses, with St. Louis Fashion Incubator Executive Director Eric Johnson (second from left) and Simplify Commerce's Ciara Hickey (far left) and Keith Ingenthron (middle).

Features to Fit Your Organization

Personalization and Simplicity.

Simplify Commerce is a secure online payment solution that is simple to set up and easy to use. Each organization has their own dashboard where they can see donations, sales and orders in real time. The dashboard also features e-Invoicing, options to store customer details and contact customer support.



Pay in New Ways. Top-notch security gives organizations peace of mind. Payments can be accepted via Apple Pay, online, in person, via mobile apps and through social and e-mail.



Customization Features. The platform also includes payment management features designed to make running a small business or nonprofit easier, such as hosted payments, branded e-Invoices, recurring payments and fraud management.



Developer Tools. Development has been simplified, too, with fully customizable APIs and SDKs in nine popular programming languages, including iOS and Android. There is a developer library with sample source code, along with a variety of developer tools.



Learn more at www.simplify.com and www.eqstl.com/simplify.

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EQ

Q/A Jacqueline Ko Matthews

SixThirty brought Jacqueline Ko Matthews and her company, Investment POD to St. Louis, and Prosper Women's Entrepreneurs Accelerator Program has kept her connected. Read on to see how she got her start in the FinTech space.

Interview *Mary Mack*



EQ: How did you get your start in wealth and money management?

JKM: I got my bachelor's in economics from Wellesley College and my master's in international economics from the Johns Hopkins School of Advanced International Studies. After Wellesley, I was recruited by Goldman Sachs to work as an investment banker in corporate finance on Wall Street. I rose quickly and worked with co-chair Robert Rubin before he went to become Treasury Secretary. I was part of a pioneering team of nine to spearhead the Goldman investment banking business in Taiwan and China. It was a startup environment in those days where we worked out of hotel rooms traveling from country to country. It was very exciting as I was able to meet central bank governors, ministers of finance and CEOs of large corporations. My first deal was a \$1.1 billion IPO of China Steel in Taiwan.

EQ: What does entrepreneur mean to you?

JKM: Without sounding too angelic, the core of an entrepreneur is using their skills and talents and creating a service or product that brings value to society

and helps others. What comes with the territory of being an entrepreneur is they have to be comfortable embracing uncertainty and seeing it as an opportunity. On the other hand, an entrepreneur has to be able to balance their strong convictions with continually being able to pivot and being opportunistic rather than egotistical to survive.

EQ: What three qualities do you think an entrepreneur should have?

JKM: Never forgetting the "why" of what you are doing; conviction; flexibility.

EQ: What do you care about (causes, involvements, volunteerism)?

JKM: I care a lot about kids being bullied in school and in cyberspace. My 10-year-old daughter was bullied in third grade and it was devastating to her self-confidence and her love of school. She was able to turn it around through her singing and songwriting. Her concerts have raised money and awareness through her album sales against bullying. She got exposure for her work on NBC and was recognized by Senator Mark Warner.

Since the age of 5, I trained to become a professional ballerina, so I love the arts and music, but it is sad to see how artists don't get paid for their work anymore in the digital age. It is a "dying art."

EQ: What can people find you doing outside the office?

JKM: Both my kids (son, 12 and daughter, 10) are highly ranked golfers and tennis players. So my hobbies include caddying my kids at a golf tournament at Augusta, Pinehurst, Doral, Copperhead, Seaview and in Scotland. My kids have competed on all the major PGA and LPGA courses. I also love watching my kids compete at the Orange Bowl International, Easter Bowl and Citi Open Future Stars of Tomorrow tennis tournaments and cheering them on.

EQ: What's one thing you want to learn?

JKM: I'd like to have time to take a lesson and work on my own golf and tennis games so I can compete with my kids! —EQ

Jackie Ko Matthews is founder and CEO of InvestmentPOD, a startup that helps wealth managers cost effectively build and maintain an online money management presence.

Photo Courtesy of Jackie Ko Matthews



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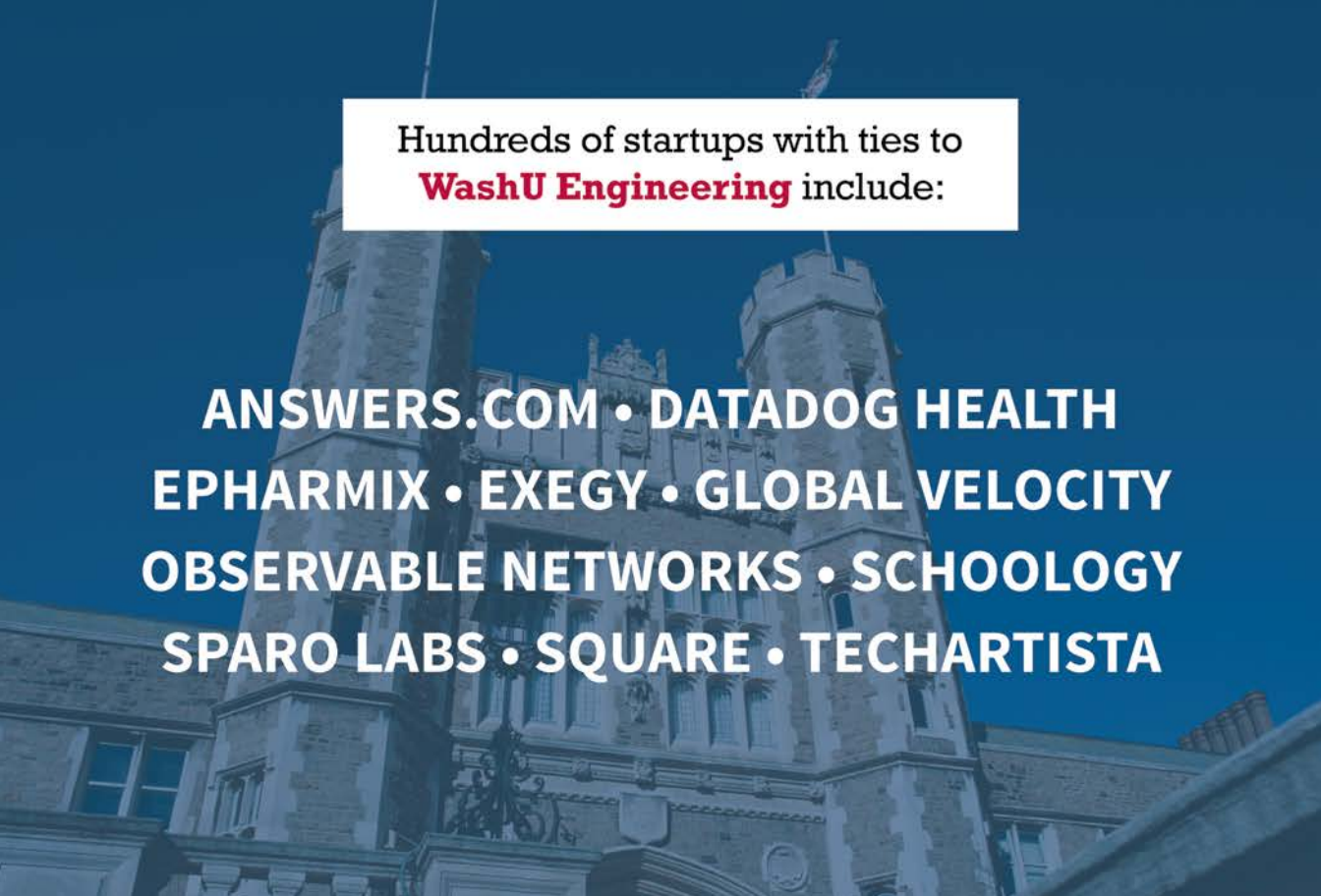


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