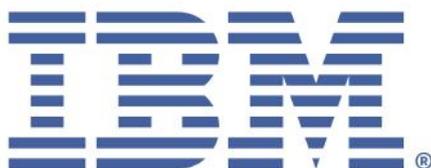# RE•WORK

AI IN FINANCE SUMMIT

NEW YORK
SEPTEMBER 5-6, 2019

EVENT REPORT:
Highlights, attendee & speaker feedback, agenda overview, photos, videos, interviews & more.
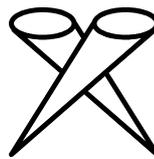
IBM **ABBYY**

AI IN FINANCE SUMMIT

2 DAYS

400 ATTENDEES

2 TRACK ACCESS

60 SPEAKERS

12+ HOURS OF NETWORKING

6 EXHIBITORS
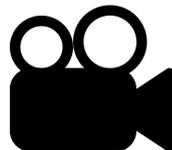
8 INTERVIEWS

10 SPONSORS
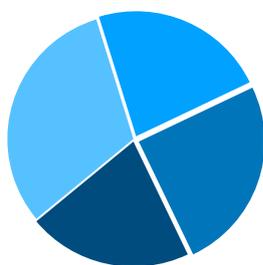
JOB ROLES

- CTO and CEO
- Academics
- Data Scientists
- Director
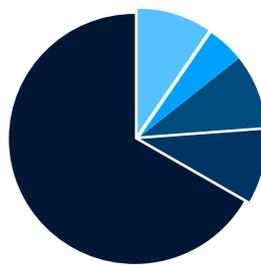
COMPANY SIZE

- Just me!
- 11 - 50
- 101 - 1000
- 2 - 10
- 51 - 100
- 1001+
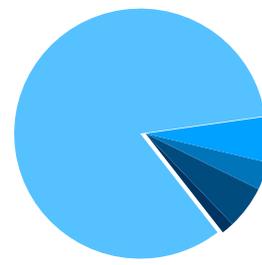
LOCATION

- USA
- Canada
- Other
- Europe
- Asia

A NOTE FROM THE FOUNDER

It's been fantastic to see the growth in the implementation and impact of machine learning and deep learning methods across the financial sector over the past year. Since the inaugural New York edition in 2018, **we've witnessed a surge in areas which are being revolutionized by AI,** including enhancing customer service, decision making, automation, and many more.

This year's agenda saw a progression from more research-focused presentations, to **real-world examples of integrating machine learning methods and tools into businesses** to increase efficiency and accuracy in the financial sector.

We also held the inaugural **AI in Insurance Summit** in parallel, to increase collaboration and cross-industry learning at the event.

We discovered the latest AI applications from **Square, JP Morgan, IBM, Square, Capital One, Nasdaq** and many more. We're now looking forward to hosting the UK edition in London in March next year.

We hope to see you there!

- Nikita Johnson, CEO, **RE•WORK**

ATTENDEE FEEDBACK

I really enjoyed Marsal from Square talking about NLP. It's really relevant in Insurance but it's good to know the crossover to finance in more detail. On the event app, I've found talks I wouldn't have thought of going to.

Qyuinn Mo, NYU

The Deep Dive sessions were intimate with lots of interesting discussions. It was a great way of getting stuck in.

Jean-Marc Levy, ComplySci

We go to a lot of events but this one is special. Usually there is only one or two questions after each talk but the Q&S's here don't stop! The conference is great in that it is so interactive and everyone is really engaged.

Noorjit, Plug and Play Ventures

I'm a CTO so when the technical topics were related to business problems it was really relatable. Explainability came up a lot, and there was a talk this afternoon relating directly to that which was one of the most insightful for me.

Laurie Winters, Publicis Sapient

Finance and Insurance are old industries and AI is causing a huge shift. I desire to be part of this transformation and hearing use cases of NLP and Computer Vision to solve fraud and other problems in Insurance has been so interesting.

Ravi Chowdhury, NYU

AI IN FINANCE SUMMIT

This summit focused real-life AI applications, case studies, business insights & results from leading companies leveraging AI to solve problems in enterprise.

Speakers shared their insights & lessons learned to provide advice based on their own experiences, case studies & applications across industries such as transportation, manufacturing & cybersecurity.

EXPERT SPEAKERS INCLUDED:

Tucker Balch
Managing Director
J.P. Morgan AI
Research

Marsal Gavalda
Head of Machine
Learning
Square

Paras Parekh
Head of Artificial Intelligence
and Machine Learning
Credit Suisse

Shi Yu
Chief Data
Scientist
Vanguard

Ali Raza
Machine Learning
Engineer
Bank of America

Igor Halperin
Research Prof of Financial
ML/AI Asset Management
NYU/Fidelity Investments

Leman Akoglu
Associate Professor
Carnegie Mellon
University

Deborah Barta
Senior Vice President
Mastercard

Anurag Setty
Lead Data Scientist
Barclays

Sophie Chen
Data Scientist
Nasdaq

Natalia Bailey
Associate Policy
Advisor
Institute of
International Finance

Carlos Patiño-Florez
Analytics Capabilities
Manager
Bancolombia

PRESENTATION HIGHLIGHTS

Data-based Decision-ing is at the Core of every step of customer journey in retail finance. Targeting, personalization, engaging, deepening, loyalty and retention are our key steps.

Anurag Setty, Barclays

Which model is the best? More false positives or more false negatives? We need to look at the interpretability and how easily things can be explained. We're using ML driven customer facing product features. When you're creating a ML driven product you need to think about the design, modelling, engineering and analytics.

Marsal Gavalda, Square

We know the lifetime of a loan, we know how much they paid in interest, how long it led them to pay back and such like. I evaluate this, track the cash flow. Loss prediction is a key success factor.

Alan King, IBM

Everything we do in trading mounts either to reinforcement learning or enforced RL in portfolio trading, RL is sequential decision making by choosing multiple possible actions of buying and selling securities.

Igor Halperin, NYU

Index is a statistical measurement of the target we want to track. At the same time there are static portfolios that we want to track the performance of and tie to the target.

Sophie Chen, Nasdaq

AI and machine learning is the pinnacle of a long journey, the beginning of this journey is getting your data correct. It is a journey to producing AI that can produce profit and cost saving. What is needed is patience.

Zachary Glassman, UBS

AGENDA OVERVIEW

DAY 1

4TH INDUSTRIAL REVOLUTION IN FINANCE

We want to create stickiness for the customers and we want them to be the advocates for the products. When I came into Barclays I noticed a repetitive pattern of customer journey. The key marketing mix is the product placement pricing and promotion.

Anurag Setty, Barclays US

CUTTING EDGE RESEARCH ADVANCEMENTS

I want to find out what stands out in large complex data to identify anomalies and apply it to finance. When we talk about anomaly detection the point is we have a large data set and we want to identify the features that stand out. Unfortunately this isn't the whole picture and there's lots of data that doesn't behave in this same way. We need to be able to detect anomalies better and make them interpretable.

Leman Akoglu, Carnegie Mellon University

APPLIED RESEARCH

Market capitalization is important, and so is utilization. This is the ratio of the quantity of shares in loan to the quantity of sharers in inventory. Higher utilization can be indicative of relatively constrained market while delta in fees can be informative of supply/demand trends. We created a HTB (hard to borrow) score to reflect combination of utilization and market concentration of name.

Yasser El Hamoumi, State Street

INVESTMENTS & AI

We want to look into a new approach of Machine Learning: Inverse optimization. There are very few people working on this but we think it deserves attention. We're looking at understanding portfolio construction processes. In robo-advice, an important question is understanding decision processes of successful investors and try to replicate their success to new clients.

Shi Yu, Vanguard

PRACTICAL TAKEAWAYS

MasterCard has been using AI for over 10 years, and we are able to predict merchant spend cessation 2 months in advance, with +70% accuracy within top two decile.

Rohit Chauhan, MasterCard

TRANSPARENCY, BIAS & RESPONSIBLE AI

We're focused on 4 pillars; Agency: we're learning from experience, Expose AI and ML Internals: explainability, Real-time, secure and multimodal: data cryptography and a lasting human-AI interaction: such as ethics and fairness.

Tucker Balch, J.P. Morgan

PANEL: How Do We Ensure The Ethical Development of AI in Finance?
The most obvious risk is lack of visibility. Are our models accurately modelling what we 'think' they are modelling? If we see signals in areas where we didn't expect to see signals, we have to ask the question of 'why?' - this is concerning.
Zachary Handi, CapitalOne

DAY 2

SUMUP ANALYTICS   **UBS**

introhive

Relationships are important in professional services and financial services. People underestimate how important relationships are. What the platform does is connect into your communication platform. Automate data in, get intelligence out.

Adam Stewart, Introhive

APPLIED AI IN FINANCE: USE CASES

Bancolombia   **Nasdaq**

ABBYY   **IBM**   **J.P.Morgan**

With ABBYY Vantage we train the classification, we then train it to extract data (simply by labelling the documents), then we then create our skills. Finally, we publish the machine learning model to our host.

Paula Sanders, ABBYY

Index is a statistical measurement of the target we want to track. At the same time there are static portfolios that we want to track the performance of and tie to the target.

Sophie Chen, Nasdaq

Thanks to our market share, ample client base and widespread presence (37% market share), Bancolombia's transaction data properly reflects overall economic activity.

Arturo Gonzalez, Bancolombia

We are looking at a lot of opportunities to use reinforcement learning at IBM for financial applications. The challenge is getting enough data. At the moment, these applications are primarily trading.

Alan King, IBM

ML to the rescue! Using Machine learning reduces false positives, provides intelligent segmentation and captive risk rating.

Kishore Karra, J.P. Morgan

FUTURE OF AI IN FINANCE

usbank   **Morgan Stanley**

Our NLP engine is made up of a tokenizer, abbreviation handler, spell checker, parser and lemmatizer. Chatbots are ubiquitous in customer service, and despite the research and development in AI, recent data shows that the majority of humans still prefer to chat to a human rather than a machine.

Ron Wu, Morgan Stanley

Citi   **UBS**   **Square**

SOCIETE GENERALE

PANEL: How Can We Overcome Obstacles to Capturing ROI in AI & Machine Learning?

Success for us is about qualifying what a great experience is, and providing that digitally.

Kamalesh Rao, Société Générale

The first successful project we had was automating claims. We first must add value, and then we can build up trust to have the freedom to work on things we think will add value in the future. Now that our automation has been proven, we have the trust to now work on long-term goals. We have a lot of data, and I want to learn a lot from this data. I want to get to the point where everything we should know, we do know. I want to know how much premium we should expect to collect.

David Jaw, Trupanion

A lot of people who are not data scientists have started to wonder what python is. When you can show real results you can inspire people and then they can pursue it in their own time.

Zachary Glassman, UBS

DEEP DIVE TRACK: HIGHLIGHTS

Exploring AI For Financial Compliance- Complysci

We cover every conflict of interest that could occur from an employee. We have 1100 clients with 100,000 employees, we used machine learning to make compliance process easier. 61% of businesses state that they are implementing AI. One of the biggest challenges we find when implementing AI is a lack of resources and trained individuals. AI is helping shift regulatory compliance from reactive to preventative.

Jean-Marc Levy,
CEO

Near Real-Time Data: The Beauty of Pub/Sub Systems and Getting Started with Kafka, Chubb

Every ML project is different, but all of them rely on the same thing: data. The success of some projects might rely on "Near real-time data", a term that has joined the elite ranks of "cloud" and "big data". The session started with an explanation of the Publish/Subscribe method of data transmission and how it enables us to ingest, process, transform and emit thousands of messages, or more, per second. Jameson encouraged attendees to use their laptops and get stuck in!

Jameson Tucker Allen
Data Engineer

Investing in FinTech and InsurTech AI Startups

Deborah Barta,
Senior VP,
MasterCard

Noorjit Sidhu,
Investor,
Plug and Play Ventures

Josh Cohen,
Principal,
Liberty Mutual

Devin Devrai,
Associate,
American Family Ventures

We spend a lot of time encouraging people to think about bias. Another issue is consumer trust.
Noorjit Sidhu

My niece is coding a website at school. That wasn't even as option when we were kids, so it's definitely heading in the right direction. 70% of the startups we're working with are female led. Not only is that great to say, but we have such great minds in these teams.
Deborah Barta

One of the key mistakes we see is companies rushing into the implementation of AI. There are a lot of 'tech first' companies out there, but if you're not solving a real-world problem, it doesn't mater how cool your AI is, it needs to serve a concrete purpose.
Devin Devrai, American Family Ventures

INTERVIEWS & PODCASTS

As well has hosting events, RE•WORK has a catalogue of online resources with White Papers, video interviews, our blog, and the Women in AI podcast. At each event, we chat with speakers and industry experts who share their expertise.
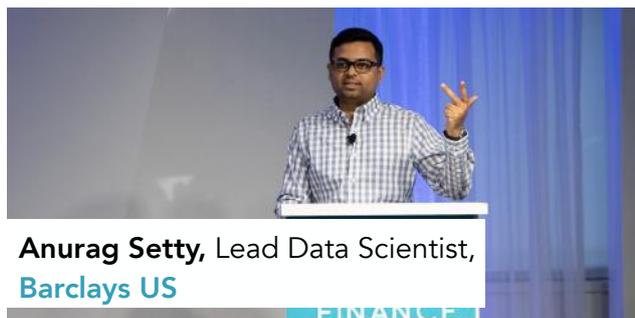
We're always open to new collaborations and love hearing from attendees and speakers alike. If you are working on something you think would be valuable to our content hub, don't hesitate to get in touch with Yaz: yhow@re-work.co
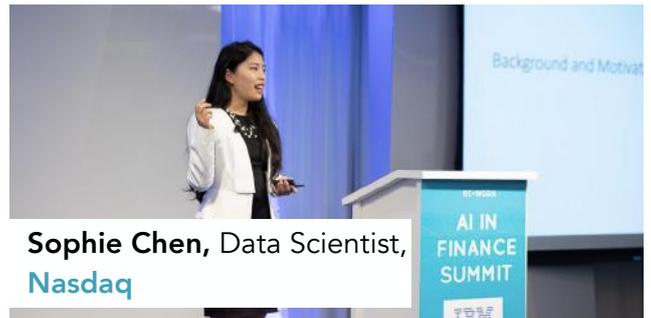

Julia Romero, Lead for Actuarial Engineering, **Haven Life**

Julia joined us for an episode of the Women in AI podcast where she spoke about her background in data science and her passion for using machine learning to develop insurance, to drive rapid and sound product development and pricing for the challenges of the modern insurance market.

Jas Maggu, Founder & CEO, **Galaxy.AI**

Jas explained her current work in automated damage detection using AI to increase claim efficiency. She spoke about her work as a board member of the early-stage companies, and shared advice on business strategy and development for emerging and break through companies in the space.

Deborah Barta, Snr. VP, Innovation & Startup Engagement, **MasterCard**

As well as leading global innovation initiatives to experiment with new technologies, accelerate new concepts to market, and deliver transformative solutions to drive material growth, Debbie spoke about the importance of encouraging diverse backgrounds into FinTech.

Marsal Gavalda, Head of Machine Learning, **Square**

"At Square, the growth of the product is exponential, where as the growth of our headcount has to be more linear. This means that we need to use ML to accelerate our processes and allow us to keep up with the demand for more product features."

Anurag Setty, Lead Data Scientist, **Barclays US**

Interviewed by Gabriela Barkho from Observer, Anurag shared his journey into data science, machine learning and finance. He is currently responsible for developing new capabilities in AI, ML and DL at Barclays.

Sophie Chen, Data Scientist, **Nasdaq**

"In the US market, passive investing rates have increased massively. It's almost doubled. In the global market however, active is still huge. In Nasdaq our index business has had a steady growth, it's a typical cap weighted index."

WHAT'S NEXT?
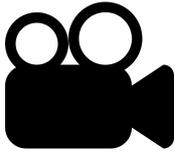
Video presentations will soon be available online and you can access them here. On our video hub we also have extensive playlists from our past events.

Subscribe to the Women in AI Podcast to hear the latest episodes and learn from influential women working in AI.

READ MORE

Read More   Watch   Read More

UPCOMING EVENTS

LONDON, SEPT 19 - 20, '19
AI in Retail & Advertising Summit
Deep Learning Summit
AI Assistant Summit

MONTREAL, OCT 22 - 25, '19
Women in AI Dinner, 22
Deep Learning Summit, 24 - 25
Responsible AI Summit, 24 - 25

SAN FRANCISCO, JAN 28 - 31, '20
Women in AI Dinner, 28
Deep Learning Summit, 30 - 31
AI Assistant Summit, 30 - 31
Applied AI Summit, 30 - 31

LONDON, MARCH 19 - 20, '20
AI in Finance Summit
AI in Insurance Summit

**View our complete calendar of events, and register now for upcoming summits here. For ticket enquiries, contact John: john@re-work.co
Want to contribute to our online or live event content? Email Yaz: yhow@re-work.co**