

Abhay Cashikar

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U.S. Citizen

Education

Georgia Institute of Technology, Atlanta, GA

August 2018 – May 2022 (expected)

- Undecided Engineering, leaning Computer Science and Computer Engineering
- Cumulative GPA 4.0

Ladue Horton Watkins High School, Saint Louis, MO

May 2018

- High School Diploma, GPA 4.0
- National Merit Finalist, National AP Scholar, OCA Asian Pacific American Advocates Youth Leadership Award
- Rank of Eagle Scout

Skills

Programming: Java, C/C++ (Arduino), JavaScript, MATLAB, HTML5, command line, React Native

Concepts: Classical mechanics, electricity and magnetism, physical chemistry, power generation and distribution

Software: Git, IntelliJ, Eclipse, Android Studio, Postman, NCR Site API, Autodesk Inventor, Fritzing, Microsoft Office

Instrumentation: Arduino, particulate matter sensor, Bluetooth module, XBee module, oscilloscope

Communication: Research papers, research posters, design proposals, presentations, chat servers

Languages: English (native), Kannada (native), Japanese (beginner), Spanish (formerly studied)

Music: Classical and modern piano (13+ years of study and self-study)

Athletics: Swimming, tennis, volleyball, strength and endurance workouts

Clubs: GT Solar Racing, The Hive, Robojackets, Starter Bikes, Emerging Leaders, FIRST Robotics, Science Olympiad

Projects

Good Deed, Atlanta, GA

October 2018

Created an application at HackGT to help users find volunteer opportunities in their community

- Used React Native to develop an infinite scrolling screen with social posts from volunteer organizations
- Utilized the NCR Site API to store and retrieve information about volunteering events and organizations

KanaGuess, Saint Louis, MO

December 2018

Mobile application for Japanese character pronunciation recognition

- Developed Android application for Japanese learners using Android Studio and Java
- Allows users to select character groups to study, and provides feedback on incorrectly identified characters

Experience

Peer Instructor at The Hive ECE Makerspace, Atlanta, GA

September 2018 – present

- Help train and oversee students that use equipment in the makerspace, like soldering irons and oscilloscopes
- Created and maintaining a resume book of the resumes of 80+ peer instructors

Peer Notetaker for Office of Disability Services, Atlanta, GA

September 2018 – present

- Take detailed notes in classes for students who have trouble taking notes while listening to professors lecture

Publications

Cashikar, A., Li, J., & Biswas, P. (in press). Particulate matter sensors mounted on a robot for environmental aerosol measurements. *Journal of Environmental Engineering*.

Research

Research Intern, Washington University in Saint Louis, Saint Louis, MO

May 2017 – January 2019

Creation of a robot cart to manually and autonomously sample particulate matter (PM) concentrations

- Retrofitted a robot cart with a PM sensor; developed manual sampling, autonomous sampling, and autonomous source finding programs using Arduino Nanos and a Bluetooth module connected to an Android device
- Used MATLAB to plot collected spatiotemporal data in a contour plot showing accurate ventilation of PM

Leadership

Auxiliary Array Leader, GT Solar Racing, Atlanta, GA

August 2018 - present

- Developing a deployable solar array to charge the solar car when it is parked
- Array consists of eight sections each containing a 4x4 grid of solar cells, for a total of 128 cells

Co-Captain and Mechanical Lead, FIRST Robotics Team 4330, Saint Louis, MO

August 2016 – May 2018

- Designed, prototyped, and built robot mechanisms, and delegated work to fellow team members
- Instructed new members on the engineering design process and proper equipment usage