

Vikram Shanker

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Education

B.S. Computer Engineering, Carnegie Mellon University

MINOR IN COMPUTER SCIENCE

GPA: 3.94/4.00

Dean's List - College of Engineering

May 2018

Pittsburgh, PA

H.H. Dow High School

VALEDICTORIAN

May 2014

Midland, MI

Experience

Google, Internet of Things Platform Team

May - August 2016

SOFTWARE ENGINEERING INTERN

Mountain View, CA

- Designed and implemented a native Android library that allows real-time communication between Internet of Things devices and Android applications.
- Optimized API's to reduce network requests by 60% resulting in faster load times and less data usage.
- Implemented inline device controls in the user interface resulting in simpler and more convenient device control.
- Evaluated cloud messaging protocols to ensure future scalability while reducing feature-bloat.

SynergyLabs, Carnegie Mellon University

January 2015 - Present

SOFTWARE RESEARCH ASSISTANT

Pittsburgh, PA

- Released ProtectMyPrivacy(PMP), an Android application that actively protects the private information of over 30,000 users.
- Implemented a third party library separation feature allowing for private information made by third party libraries to be distinguished from requests made by the application using the library giving users more fine-grained control over their private information.
- Refactored HTTP client-server communications to sanitize and log users privacy decisions.

School of Computer Science, Carnegie Mellon University

Spring 2015, Fall 2016

TEACHING ASSISTANT, FUNDAMENTALS OF PROGRAMMING

Pittsburgh, PA

- Teach introductory to intermediate programming in Python, covering control flow, recursion, object oriented programming, efficiency, and more.
- Lead recitation and course-wide review sessions, hold office hours, and grade homework, quizzes, and exams.

Student Life Staff, Carnegie Mellon University

August 2015 - May 2016

RESIDENT'S ASSISTANT, FIRST-YEAR HOUSING

Pittsburgh, PA

- Promoted a living environment designed to link community, faculty, and residents.
- Created student-centered residence programs to promote personal growth.

Campus Involvement

Teknowledge - Technical Educational Outreach

Pittsburgh, PA

EXECUTIVE BOARD MEMBER

April 2015 - Present

- Cofounded an educational outreach program dedicated to teaching under-represented high school students Computer Science and Engineering.
- Mentored high school students in under-represented communities to impart technical knowledge as well as real-world experience.

Club Tennis, Carnegie Mellon University

Pittsburgh, PA

PRESIDENT AND MEN'S CAPTAIN

May 2015 - Present

Honors & Awards

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| 2014 | National Merit Scholar , Top 1% of students in the United States | United States |
| 2014 | A.H. Nickless Innovation Competition , Won 1st Place, \$45,000 grant. | Michigan |
| 2014 | International Top 10 , DECA International Competition | Atlanta, U.S.A |
| 2014 | Scholar Athlete Scholarship Award , Michigan High School Athletic Association | Michigan |
| 2013 | State Champion , Michigan High School Policy Debate | Ann Arbor, Michigan |

Skills

Programming Languages: Java, Python, C, SML, System Verilog, SQL, x86-64 assembly

Platforms, Frameworks, and Operating Systems: Android, Linux, Unix, Git, Django

Relevant Courses: Operating System Design and Implementation, Embedded Real-time Systems, Parallel and Sequential Data Structures and Algorithms, Structure and Design of Digital Systems, Green Computing, IP Law, Digital Marketing and Social Media

Languages: English, Tamil, Spanish