Ethan J. Shang

email: ethanshang@berkeley.edu
website: ethanjshang.github.io
U.S. Citizen

Profile: Developer of user-facing applications with experience in database design, data visualizations and analytics, and mobile applications with an interest in big data and product management.

Education

University of California, Berkeley, Class of 2020 (Junior), GPA: 3.66, Computer Science GPA: 3.75
o Electrical Engineering & Computer Science, College of Engineering − *Regents' and Chancellor's Scholar*
Las Positas Community College, GPA: 4.0 (2016–2017, concurrent enrollment during high school)

Employment and Work Experience

Software Engineer Intern | Microsoft   (May – Aug. 2019)
o Upcoming in Summer 2019. Full-cycle product development using Microsoft Azure cloud services.

Software Engineering Intern | Lawrence Livermore National Laboratory   (May – Aug. 2018)
o **Project**: Data analytic tool to improve supercomputer performance—automate analysis by integrating disparate data; created query language and parser for language-agnostic queries via web-based dashboard

Research Assistant | UC Berkeley RISELab   (Jan. – May 2018)
o **Project**: To streamline the integration of machine-learning techniques into user-facing applications

Academic Intern | University of California, Berkeley   (Dec. 2017 – present)
o Official course staff — Department of Electrical Engineering and Computer Science

Computer Security Intern | Lawrence Livermore National Laboratory   (2016–2017)
o **Project (2017)**: Data mining and assessment of the Department of Energy's vast network to improve threat detection; Leadership role in developing autonomous analytical software from the ground up
o **Project (2016)**: Created tools to monitor network data from mobile devices by parsing packets; correlated physical movement with network data to provide security assessment and improve workplace efficiency

Skills and Abilities

o **Programming languages**: Java, Python, C, C++ , Swift, Scala, Bash, SQL, Scheme
o **Tools**: Git, Jupyter Notebook, Microsoft Azure Machine Learning, Microsoft Office Suite
o **Information Management**: Firebase, database query design, user-defined libraries, API design
o **Big Data**: automation, aggregation, datamining, and resource-management applications
o **Network Security**: Data mining, packet/protocol analysis, encryption, cryptography, wireless penetration
o **Coursework**: Data Structures, Computer Architecture, Designing Information Devices and Systems, Discrete Math and Probability, Electricity and Magnetism, iOS Design/Development; Spring '19: Efficient Algorithms and Intractable Problems, Intro to Database Systems, Principles of Data Science
o **Project:** iOS app — cloud-based cost-sharing with integrated messaging and payment requests
o **Project:** Machine learning — leveraging Yelp's Open Dataset to predict and visualize user preferences

Leadership Experience

Youth Commissioner, Livermore Area Youth Advisory Commission   (2015–2017)
o Leadership role on citywide commission to help youths in underserved demographics with academic pursuits
Technical Lead, Lawrence Livermore National Laboratory   (May – Aug. 2017)
o Managed development of analytics tool collaboratively, interfaced with team members of diverse disciplines

Notable Awards

o UC Berkeley Regents' and Chancellor's Scholarship — Top 3% of Berkeley students
o National Merit Scholarship Finalist — <1% of U.S. high school seniors
o California Legislature Assembly Certificate of Recognition, 2017
o National Certificate of Merit in Piano, Level 10; Fusion Soccer Athlete-Scholar of the Year
o Recipient of seven merit-based scholarships in science and engineering