

# Ethan J. Shang

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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

- 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

- Upcoming in Summer 2019. Full-cycle product development using Microsoft Azure cloud services.

**Software Engineering Intern | Lawrence Livermore National Laboratory** May – Aug. 2018

- **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

- **Project:** To streamline the integration of machine-learning techniques into user-facing applications

**Academic Intern | University of California, Berkeley** Dec. 2017 – present

- Official course staff — Department of Electrical Engineering and Computer Science

**Computer Security Intern | Lawrence Livermore National Laboratory** 2016–2017

- **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
- **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

- **Programming languages:** Java, Python, C, C++ , Swift, Scala, Bash, SQL, Scheme
- **Tools:** Git, Jupyter Notebook, Microsoft Azure Machine Learning, Microsoft Office Suite
- **Information Management:** Firebase, database query design, user-defined libraries, API design
- **Big Data:** automation, aggregation, datamining, and resource-management applications
- **Network Security:** Data mining, packet/protocol analysis, encryption, cryptography, wireless penetration
- **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
- **Project:** iOS app “Check-Mate” — cloud-based cost-sharing tool with integrated messaging and payment requests (*Award:* Most Innovative App by UC Berkeley faculty)
- **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

- Leadership role on citywide commission to help youths in underserved demographics with academic pursuits

**Technical Lead, Lawrence Livermore National Laboratory** May – Aug. 2017

- Managed development of analytics tool collaboratively, interfaced with team members of diverse disciplines

## Notable Awards

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