

# 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 2021, GPA: 3.76, Computer Science GPA: 3.86

*Dean's List* ✦ *Regents' and Chancellor's Scholar*

- Electrical Engineering & Computer Science, College of Engineering

**Las Positas Community College**, GPA: 4.0 (2016–2017, concurrent enrollment during high school)

## Employment and Work Experience

**Microsoft | Software Engineer Intern** May – Aug. 2019

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

**Lawrence Livermore National Laboratory | Software Engineering Intern** 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

**UC Berkeley RISELab | Research Assistant** Jan. – May 2018

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

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

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

**Lawrence Livermore National Laboratory | Computer Security Intern** 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:** Efficient Algorithms and Intractable Problems, Intro to Database Systems, Principles of Data Science, Data Structures, Computer Architecture, Designing Information Devices and Systems, Discrete Math and Probability, Electricity and Magnetism, iOS Design/Development
- 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

**Livermore Area Youth Advisory Commission | Commissioner** 2015–2017

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

**Lawrence Livermore National Laboratory | Technical Lead** 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