Ethan J. Shang

2680 Lucca CT, Livermore, CA 94550
Cell: (925) 321-9181
email: ethanshang@berkeley.edu
U.S. Citizen

School Address:
Room: 6B22E
2700 Hearst Ave
Berkeley, CA 94720

Education

University of California, Berkeley, Class of 2021, GPA: 3.67, Computer Science GPA: 4.0

o   Major in Electrical Engineering and Computer Science
o   Regents' and Chancellor's Scholar

Granada High School, Class of 2017; GPA: 4.52 (4.0 unweighted)

Las Positas Community College, GPA: 4.0 (Concurrent enrollment during high school)

Sandia National Laboratories Cyber Technology Academy, March 2014–July 2015

Employment and Work Experience

Academic Intern, University of California, Berkeley (2017-2018)

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

Global Security Intern, Lawrence Livermore National Laboratory (2017)

o   Improve external threat detection by characterizing all Department of Energy sites' network data traffic
o   **Project**: Data mining and assessment of the Department of Energy's entire vast repository of network information; developed autonomous analytical software and organizational framework from the ground up; ultimately provided protection for a heightened network infrastructure security
o   Leadership role in conceptualizing/implementing project's code development and in team management

Computation Intern, Lawrence Livermore National Laboratory (2016)

o   **Project**: Created tools to monitor network data from cell phones and other devices by parsing packets
o   Correlated physical movement with digital network traffic to provide security assessment and improve workplace efficiency
o   Practical experience in network operations, computer security, information protection, and cyber policy

Skills and Abilities

o   C++: (two semesters) database management system, data structures, user-defined libraries
o   Python: packet/protocol analysis, data mining, and encryption applications
o   Bash: automation, aggregation, data-mining, and resource-management applications
o   Java: data structures, sorting and search implementation/analysis
o   Machine learning: practical experience with k-means algorithms and least-squares linear regressions, leveraging Yelp's Open Dataset to predict and visualize user preferences
o   Network Security: TCP/IP, cryptography, wireless penetration, and DNS/DHCP network services

Coursework:

o   UC Berkeley — Structure and Interpretation of Computer Programs, Data Structures, Designing Information Devices and Systems I & II, Multivariate Calculus, Physics for Scientists and Engineers
o   Other — Ethics and Law in Cybersecurity

Leadership Experience

Youth Commissioner, Livermore Area Youth Advisory Commission (2015–2017)

o   Citywide commission to promote collaboration between city leadership and youth in the City of Livermore
o   Leadership role in helping youths in underrepresented demographics in academic pursuits

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