ALAN TON

▶ Contact

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▶ Summary

I am currently a fourth-year student studying Electrical Engineering & Computer Science at UC Berkeley passionate about software engineering, distributed systems, and cloud computing.

SKILLS

Python
Java
C
Linux/Unix
Git
MATLAB
AWS
Mercurial
Hack/PHP
Django
SQL
Golang

INTERESTS

Software Engineering
Computer Architecture
Cloud Computing
Education
Social Welfare
Operating Systems
Reliability Engineering

▶ Awards

May 2015
Boy Scouts of America
Eagle Scout

▶ Education

University of California, Berkeley
B.S. Electrical Engineering & Computer Science 2020

Relevant Coursework: Operating Systems & Systems Programming, Internet Architecture & Protocols, Algorithms, Compilers, Computer Architecture, Database Systems, Data Structures

▶ Employment

UC Berkeley College of Engineering
Undergraduate Student Instructor
Berkeley, CA
May 2019 to Current

• CS162: Operating Systems and Systems Programming
• Work closely with the professor to plan and create course material
• Create/debug exam content and grade the midterm & final examination
• Teach 2 weekly hour-long discussion sections of 32 students each
• Host office hours twice a week to assist students with course concepts, homework, and projects
• Developed autograder in Python/C to grade student-created HTTP servers

Facebook
Production Engineer Intern
Menlo Park, CA
May 2019 to Aug. 2019

• Instagram Core Infrastructure Team
• Solve Instagram infrastructure reliability problems with a software engineering approach
• Automated the triage process for Instagram server errors with regression detection and error attribution techniques
• Resulting time savings to the triage process are in the order of hours -- much of the oncall's duties have been automated

Amazon Web Services
Software Development Engineer Intern
Seattle, WA
June 2018 to Aug. 2018

• Amazon EC2 (Elastic Cloud Compute) Networking Team
• Implemented live update feature to enable EC2 instances launched on Linux to upgrade the entire networking software stack without the need to reboot hardware
• Update times were reduced from minutes to milliseconds
• Used the Python behave testing framework to test ClassicLink connections between EC2-Classic instances and Virtual Private Clouds (VPCs)

NASA Jet Propulsion Laboratory
Undergraduate Engineering Intern
Pasadena, CA
June 2017 to Aug. 2017

• Component Engineering and Assurance Office
• Managed and organize electronic database of over a million electrical components
• Automated the inventory check process and database transfer protocol with scripts written in Python and Excel Macros written in VBA
• Distributed electrical and electronic parts to missions across lab (e.g. Mars 2020, PIXL, NISAR)

▶ Activities

Computer Science Mentors
External Vice President
Current

• Recruit and interview all candidate mentors at the beginning of the semester
• Lead weekly executive board meetings to guide the direction of the organization
• Support operations for 318 mentors and 1381 students
• Coordinate public and corporate outreach endeavors
• Build community between mentors and foster mentor identity

▶ Volunteering

Berkeley ANova
Site Leader
Current

• Improve computer science education in under-resourced communities across the Bay Area
• Teach a project-based after-school program during biweekly trips to Rudsdale Continuation School and Downtown Charter Academy in Oakland
• Developed Pygame-based project for high school students to learn how to program