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Aaron Kaloti

GitHub: akaloti   akaloti.github.io   LinkedIn: aaron-kaloti

EDUCATION:

University of California, Davis

    Master of Science, **Computer Science**, Sept 2018 - June 2020   GPA: **3.80** / 4.00

    Bachelor of Science, **Computer Science**, Sept 2015 - June 2018   GPA: **3.79** / 4.00

SKILLS:

Most Comfortable: C, C++, Python, Linux/Bash scripting, Git, x64, RISC-V, GDB

Semi-Comfortable: Java, JavaScript, HTML, Django, MEAN, Bootstrap, CSS, SQL, R, Docker, parallel programming, buffer overflow/overrun, computer networks, cryptography

EXPERIENCE:

Lecturer (Full Time), UC Davis   **June 2020 – June 2022**

Associate in Computer Science (Graduate Student), UC Davis   **September 2019 – June 2020**

- Taught courses covering topics such as Python, C, C++ (including templates, move semantics, and smart pointers), Linux (shell scripting), computer organization (including x64, RISC-V, and interrupts), data structures, graph algorithms, dynamic programming, debugging, and basic unit testing.
- Maintained high standards through comprehensive exams and challenging assignments stressing problem-solving skills. Examples of larger assignments (300-600 lines of code) include an assembler for a fictional ISA, a hash table and decrease/change-key priority queue, various made up games, and use of the network flow graph algorithm to assign instructors/tutors to courses.
- Wrote Python/Bash scripts to autograde coding assignments through the Gradescope platform.
- Managed 3 (on average) teaching assistants per quarter who assisted in grading and office hours.

Software Security Engineer, GPU Cloud Intern, NVIDIA   **June – September 2019**

- Implemented, deployed, and monitored performance of security monitor for private cloud data center and associated jump servers, gathering data with osquery and preprocessing/correlating it with crontabs.
- Added Graylog graphs/alerts for log visualization/analytics regarding file integrity, network activity, new packages, successful/failed authentications, sudo usages, etc.

Software Engineering, Tools and Infrastructure Intern, Google   **June – September 2017**

- Implemented A/B test framework to flag code changes that would crash or significantly alter the output of a pipeline of client advertisement information received by a policy review decisions system.
- Used C++ and cluster management tools, as well as database, protocol buffer, client/server, RPC, and publisher/subscriber APIs.

Research Assistant, UC Davis   **October 2019 – June 2020**

- Researched effect of anonymization of network packets on the Bro intrusion detection system (IDS).

GROUP PROJECTS:

Anomaly-Based Network Intrusion Detection System   **May 2019**

- On team of 3, created basic network anomaly-based IDS with Python, scapy, scikit, and JSON that takes in pcap files and uses k-means to classify behavior either by packet or by sliding window of packets.