Aaron Kaloti

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EDUCATION:

University of California, Davis

Master of Science, **Computer Science**, Sept 2018 - **June 2020** GPA: **3.83** / 4.00

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

SKILLS:

Much Experience: C++, Python, C, Java, JavaScript, R, HTML, Git, Django, Bash scripting

Some Experience: MEAN, Bootstrap, CSS, SQL, PHP, Erlang, CUDA, Docker, Rust

EXPERIENCE:

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

- Implementing monitor for jump server and data center with osquery, Bash scripting, Graylog, and rsyslog. The monitor checks file integrity, logins/logouts, ingoing/outgoing network connections, and will report noteworthy activity on Graylog dashboards.

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 2017 – June 2020**

- Beginning contributions to the Gunrock GPU Graph Analytics library, focusing on porting their parallelized minimum spanning tree implementation to their new API.
- Researched effect of anonymization of network packets on the Bro intrusion detection system (IDS).
- Extended a published Persian digit classification approach to improve its classification of English digits.

PROJECTS:

Anomaly-Based IDS (Group Project) **May 2019**

- On team of 3, implemented 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 within the pcap files.

Basic P2P DFS (Group Project) **January – March 2019**

- On team of 3, began basic peer-to-peer distributed file system using Python and Docker.
- Helped implement the Chord distributed lookup protocol for load balancing and basic fault tolerance.
- Experimented with Raft consensus algorithm to support conflicting writes and improve fault tolerance.

EDUCATING / COMMUNICATION:

Lecturer, UC Davis **September 2019 – June 2020**

- Scheduled to teach: introductory Python (291 students), algorithms (220), and introductory C (150).
- Duties include preparing content, managing teaching assistants, and encouraging critical thinking.

Teaching Assistant (TA), UC Davis **October 2017 – June 2019**

- Courses: operating systems, assembly language, introductory Python, and linear algebra.

- Voted “TA of the Year 2019” by computer science undergraduates.