

Linus Kipkoech

(510) 701-7121 | kipkoechlinuss@berkeley.edu
www.kipkoechlinuss.com | http://www.linkedin.com/in/linuskipkoech

EDUCATION

University of California, Berkeley – Berkeley, CA

Dec 2018

B.S., Electrical Engineering and Computer Science (EECS)

Scholarship: Mastercard Foundation full-ride scholarship awarded to high-achieving African scholars.

Relevant coursework:

Operating Systems, Computer Security, Internet Architecture and Protocols, Databases, Data Structures & Algorithms, Computer Architecture, Discrete Mathematics and Probability Theory, Structure and Interpretation of Computer Programs, Designing Information Devices and Systems

RELEVANT SKILLS

Programming Languages: Java, Python, C, SQL, HTML, PHP, Go-Lang and CSS

Other: Elastic Search, TCP/IP and Unix/Linux administration; Logical thinking and problem-solving; Clear and concise communication of technical information to technical and non-technical colleagues.

WORK EXPERIENCE

System Analyst II

Jan 2018 – Present

CA Statewide Database & Election Administration Research Center, Berkeley, CA

- Overseeing all technology and infrastructure for organization.
- Analyzing database issues and creating solutions that can be attained through new technology or alternative uses of existing technology.
- Developing and maintaining the website, which serves thousands of clients, using PHP, HTML, JavaScript and CSS.
- Working with IT environments consisting of various Linux servers and cloud-based website and server.
- Migrating a local server to Amazon Web Services EC2.
- Providing technical support of all systems to staff and administration.
- Setting up effective server data recovery plan by configuring raid 5 and raid 0 on the servers.

Software Engineering Intern

June – Aug 2017

Walmart Labs, San Bruno, CA

- Worked on ELK stack (Elastic search, Logstash and Kibana) to replace manual querying of company database of over one billion customer records.
- Set up and configured Elastic Search with Logstash in a POC test environment to ingest over a billion records from an Oracle Database into Elastic Search.
- Refactored Elastic indices to optimize stored data, facilitate faster retrieval and create useable visualizations.
- Defined and created common visualization sets via Kibana that could be reused in productions.
- Created pre-configured custom cloud images rapid environment for development, testing, and production environments.

Student Assistant

Berkeley International Office, Berkeley, CA

May – Aug 2016

- Worked alongside SEVIS Coordinator in updating and managing international students' data on a daily basis.
- Served as front desk customer service assistant, advising clients and managing all office appointments.

PROJECTS

- **Pintos:** Developed a simple operating system framework for the x86 instruction set architecture that supports kernel threads, file systems, and the loading and running of user programs. (C)
- **BearMaps:** Using Java, wrote the backend of a web mapping application that loads XML and images from Open Street Map and renders the maps in a browser. Enabled image rastering using Quad tree, which allowed for zooming in and out. Implemented A-star algorithm to determine shortest path between two points on a map. (Java)
- **Firewall:** Investigated multiple aspects of the Great Firewall of China by examining and crafting raw network traffic and sending TCP packets that would normally trigger the firewall. Discovered a sequence of packets so that the Great Firewall did NOT censor. (Python)
- **Packet Routing:** Implemented a distributed routing algorithm where all routers run the algorithm that allows them to transport packets to their destination, but no central authority determines the forwarding paths. (Bellman-Ford algorithm) (Python)

INTERESTS

- Cyber Security, Sports, Emerging Technology, Farming