Akshat Sharma

📍 San Jose, CA

✉ akshat.shm@gmail.com

in linkedin.com/in/akshat46

🄾 github.com/akshat46

➤ akshat.info

Education

San Jose State University,
Masters of Software Engineering
Aug 2019 – May 2020
Specializing in Networking Software

San Jose State University,
Bachelor of Software Engineering
Aug 2015 – May 2018

Skills

Languages
JavaScript, Python, Java, Lua, C, SASS, HTML

Backend Web
Node.js, Express.js, Next.js, Django, Ruby on Rails

Frontend Web
jQuery, React, React UI Library(Chakra UI)

Databases
Firebase, MySQL

Cloud Services
Google Cloud Platform, Amazon Web Services, Digital Ocean

Computer Networks
C Socket Programming, Software Defined Networking (Ryu, Floodlight)

Miscellaneous
Linux, Git

Interests

- Writing Codepens with UI/UX focused elements.
- Constantly ricing my Linux machine towards optimum productivity.

Professional Experience

SJSU Research Foundation,
Full Stack Web Developer & Cloud Engineer
Oct 2019 – present
- Implemented a Node.js service that gathers live data from IoT devices using AWS IoT and GCP Pub/Sub, and pushes it to Firebase database.
- Hosted the IoT Node.js service , and a dashboard web app on GCP Compute Engine.
- Currently implementing a map based dashboard using Next.js and React that will display live values from Firebase. Using socket.io to implement client-server notification system.

SJSU Research Foundation,
Full Stack Web & Native Android Developer
Nov 2018 – May 2019
- Developed a web dashboard with Node.js and Express.js for backend, Firebase as database, jQuery and SASS for frontend implementation. Main achievments:
  - Visualized live locations of different entities on a map based on values in Firebase using constant AJAX calls to Node.js REST API, and Google MAPS API.
  - Implemented a Node.js service that generates random coordinates, and other values for certain entities and saves them in Firebase.
- Enhanced existing Android app UI. Worked with Java and XML.

Projects

Ryu Dashboard, *Next.js app*
Oct 2019 – Dec 2019
Due to lack of any user interface for Ryu controller, implemented a React dashboard that displays details(flows, ports) of a network's switches based on the network's Ryu controller. Used Next.js for backend, and Mininet to simulate network topology.

Custom Linux Kernel, *Virtualization*
Oct 2019 – Nov 2019
To learn about linux virtualization, implemented custom VM-exit to perform various tasks in the hypervisor(KVM) based on values in registers.

UniRide, *Python IoT*
Oct 2017 – Dec 2017
Developed a python program that determines the status of a parking spot (i.e. car entering/leaving, and spot empty/occupied) based on data acquired by ultrasonic sensor, and publishes the status to AWS MQTT topics via python SDK.