JHALAK K. GURUNG

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EDUCATION

University of California, Berkeley
Dec 2017

— **B.S. Electrical Engineering and Computer Science**

Awards: Regents' & Chancellor's Scholar (top 1.5% of Berkeley's admitted class), The Achievement Award Program (Cal Alumni Association), Eugene F. Henry Engineering Scholarship.

Relevant Courses: Data Structures, Database System, Networking, Computer Architecture, Operating Systems, Computer Security, Artificial Intelligence, Designing Information Devices and Systems, Circuit/Signal Processing/Control, iOS Development, Blockchain Fundamentals.

LANGUAGES AND TECHNOLOGIES

- *Python, Java, JavaScript, C, Swift.*
- Node, React, Docker, Cassandra, PostgreSQL, Git, Vim.

EXPERIENCE

Rakuten USA
May 2017 - Aug 2017

Software Engineer Intern
- Collaborated with an 11 person team on the Software Service Enablement Department's (SSED's) US Innovation Lab.
- Contributed to team's new Crash Reporting Platform:
  - Designed and implemented REST APIs including the relevant docs and developer tests.
  - Setup and documented the backend development environment, including the development environment, the Cassandra test cluster using.
  - Worked with product managers and architects/tech leads on designing data model.
- Technologies used: Docker, Node, Cassandra, npm, Express, Mocha.

City College of San Francisco
Jan 2015 - May 2015

Lab Assistant for Computer Architecture
- Provided guidance to students through lab assignments, homework and class projects.

PROJECTS

EZWifi (Apple App Store) - Swift, Node.js, Mongodb, Azure (CalHack 4.0)
- iOS app that will connect to wifi by simply scanning QRCode without ever asking for wifi information.
- Designed the architecture of the app and the backend system.
- Implemented the REST APIs with sandboxed Mongodb server and deployed to Azure.

iOS Social Media Application (RNDR) - github.com/RoSp201/ios-app-rndr - *Swift*
- A location-based tracking social media app that allows you to share content with friends or public based on geolocation data.
- Built the iOS app frontend using swift.

Pintos Operating System - *C*
- Built priority scheduler and multilevel feedback queue scheduler to threading system of Pintos.
- Extended Pintos's support for user programs by implementing argument passing, process control syscalls and file syscalls
- Added buffer cache to improve reads and writes performances, and built support for extensible files and subdirectories.

Chat - *Python*
- Created a chat server using Python socket API that allows users to converse in different channels over a network.
- Users can create, join and list channels, and messages to all other members in a particular channel.

Secure File Storage - *Python*
- Designed a secure way to store and share files in an untrusted server without revealing information to the server or malicious users; implemented a Merkle tree to make updates to large files efficiently