# William C. Frank

williamcfrank@gmail.com • (510) 542-7880 • 2401 Fulton St. Berkeley, CA 94704 • www.linkedin.com/in/william-choe

#### **EDUCATION**

# University of California, Berkeley | Berkeley, CA

Bachelor of Arts in Computer Science

Expected Graduation: May 2018

GPA: 3.18

#### Coursework:

Operating Systems and Systems Programming, Efficient Algorithms and Intractable Problems, Computer Security, Internet Architecture and Protocols, Machine Structures, Data Structures and Advanced Programming, Structure and Interpretation of Computer Programs, The Beauty and Joy of Computing, Discrete Mathematics and Probability Theory, Linear Algebra & Differential Equations, Calculus

## **WORK EXPERIENCE**

## OSIsoft | San Leandro, CA

Software Engineer Intern

May 2017 - Present

- Redesigned and optimized license fetching between database subsystems
- Increased testing coverage for proprietary database command line tools
- Refactored test suites from a custom C++ unit testing framework to the Microsoft framework

Development Support Intern

May 2016 – Aug. 2016

- Researched and prototyped a voice user interface for PI Asset Framework (time-series database)
- Drafted an introductory learning guide for *PI Web API*, a RESTful service. Covered web service basics such as HTTP and development in C# / Python

# **SKILLS**

Programing Languages:

Python, C, C#, Java, C++, Scheme, MIPS, Snap

Software / Tools / Frameworks:

Flask, HTML, TFS, Git, Visual Studio, IntelliJ, MTM, REST

#### **PROJECTS**

**Pintos** 

May. 2017

Built fully functional OS from bare skeleton. Designed, implemented, and tested tested several core OS features including: threading, user programs, and file system functionality.

Secure File Store Mar. 2017

 Used crypto tools such as Symmetric/Asymmetric key encryption, HMACs, DHEs, etc. to design and build a secure and efficient file storage server that can be used given a malicious server / user.

# **Distance Vector Routing**

Oct. 2016

- Implemented a distributed routing algorithm where multiple routers cooperate to transport packets to their destinations efficiently and employ best effort recovery.

Gitlet Dec. 2015

- Designed, developed, and tested a complete version control system in Java from scratch.

Sep. 2015

- Created a Solitaire playing program and a GUI in Java using a MVC design pattern.

# **EXTRACURRICULARS**

# ANova | Berkeley, CA

Jan. 2017 - Present

Finance Officer | General Member / Mentor

- Responsible for funding onsite Computer Science mentorships and annual Hackathon for under-resourced high school students in the Bay Area.

# REACH! | Berkeley, CA

Sep. 2014 - May 2017

Director of Internal Affairs | ShadowNite Coordinator | ShadowNite Intern | Mentor

- Lead university recruitment and retention efforts for under-resourced high school students within the Greater Bay Area.