

# William C. Frank

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## EDUCATION

**University of California, Berkeley | Berkeley, CA**

Expected Graduation: May 2018

*Bachelor of Arts in Computer Science*

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 by eliminating a time check dependency
- Increased testing coverage for proprietary database command line tools

*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:

TFS, Git, Visual Studio, IntelliJ, MTM, REST, JSON, XML, HTML, CSS

## 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.

**CPU**

Mar. 2016

- Implemented a 32-bit two-cycle processor using Logisim and a Linker / Loader using C and MIPS

**Gitlet (Git-light)**

Dec. 2015

- Designed, developed, and tested a fully functional version control system in Java based off of Git

**Solitaire**

Sep. 2015

- Developed 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 focused 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.