William C. Frank

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EDUCATION

University of California, Berkeley | Berkeley, CA

Bachelor of Arts in Computer Science

Coursework:

Operating Systems and Systems Programming (CS162), Efficient Algorithms and Intractable Problems (CS170), Database Systems (CS186), Image Manipulation and Computational Photography (CS194-26) Computer Security (CS161), Internet Architecture and Protocols (CS168), Machine Structures (CS61C), Data Structures and Advanced Programming (CS61B), Structure and Interpretation of Computer Programs (CS61A)

EXPERIENCE

OSIsoft | San Leandro, CA

Software Development Engineer Intern

May 2017 - Aug. 2017

Expected Graduation: May 2018

- Introduced an architectural change to how entries are created and licensed in proprietary database. Implemented first part of this change by enforcing stricter entry count licensing.
- Increased testing coverage for proprietary database command line tools
- Refactored test suites from a custom C++ unit testing framework to the Microsoft Unit Test framework

Development Support Engineer Intern

May 2016 - Aug. 2016

- Researched and prototyped a voice user interface for proprietary data historian.
- Drafted an introductory learning guide for RESTful Web API. Covered web service basics such as HTTP and development in C# / Python. Reached over 100 customer views.

SKILLS

Programing Languages:

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

Software / Tools / Frameworks:

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

PROJECTS

Pintos

May. 2017

- Built fully functional OS from minimal skeleton. Designed, implemented, and tested tested several core OS features including: threading, user programs, and file system functionality. Written in C.

Secure File Store Mar. 2017

- Designed and built a secure and efficient file storage server using PyCrypto library that ensures confidentiality and integrity of files between multiple clients given a malicious server / users.

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. Written in Python.

Gitlet (Git-light) Dec. 2015

- Designed, developed, and tested a complete version control system based off of Git. Supports pushes, pulls, merges, and other Git features. Built in Java from scratch.

Solitaire Sep. 2015

- Created a Solitaire playing program with 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. Works with 8 schools and hundreds of students per semester.

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. Managed a \$50,000+ budget and reached 30,000+ students per academic year.