Wai Yan Phyo (Justin)

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Education

University of California, Berkeley *GPA: 3.62* **Expected December 2021**

- Electrical Engineering & Computer Science Undergraduate
- Relevant Courses
  - Software Engineering | Computer Security | Efficient Algorithms and Intractable Problems | Operating Systems and System Programming | Data Structures | Machine Structures

Skill

Languages

- Python | C++ | Java | Scheme | SQL | C | HTML | CSS | C# | Ruby | JavaScript | Go

Frameworks

- Ruby on Rails | Django | Bootstrap | React | React Native

Tools

- Git | gdb | PintOS | IntelliJ | Jupyter Notebook | Heroku | Travis CI | Unity

Project

RoomPals

- Designed and programmed a web app to keep track of chore lists among a group of roommates
  - Built upon Django's MVT framework
  - Utilizes Heroku to host the web app
  - Utilizes sqlite3 on development and PostgreSQL on Heroku
- Users can assign chores to their roommates who are in the same apartment
- Users can create, join, or leave apartments at any given time

PintOS

- Designed and developed a scheduler for the OS
  - Implemented thread priority donations to prevent any deadlocks
- Designed and developed a file system (similar to Fast File System)
  - Implemented a buffer cache that utilizes the Least Recently Used eviction
  - All file accesses are race free for multi-threading and concurrency
- Developed a simple shell for the OS
  - Implemented commands such as, cd, ls, mkdir, cat, etc.
  - Implemented piping between multiple commands in one line

Gitlet (Data Structures)

- Developed a version-control system that mimics some of the features of Git
  - Some of the features include: init, add, commit, rm, status, checkout, branch, reset, merge
  - Designed a graph-like structure with folders and files to keep track of the versions and the contents of each version, hashing each version with SHA-1 hash value

Experience

Academic Intern **Present – December 2019**

University of California, Berkeley

- Assist CS 61A: Structure and Interpretation of Computer Programs students with their homework, labs, projects, or any questions they have related to the class materials
- 3-hour commitment per week