Herbie Rand

507-363-2376 | hjrand1005@gmail.com | linkedin.com/in/herbie-rand-a863851a0 | github.com/hrand1005

EDUCATION

Swarthmore College GPA: 3.70

Bachelor of Arts, Major in Computer Science, Minor in Philosophy *May 2021*
- Relevant Courses: Data Structures Algorithms, Computer Systems, Software Engineering, Advanced Algorithms, Programming Languages, Networks, Machine Learning

EXPERIENCE

Software Engineer August 2021 – Present

Lutron Electronics Inc. *Philadelphia, PA*
- **Backend Engineering** - Oversaw and implemented major software initiatives on backend Go applications used by millions of customers worldwide
- Overhauled code integrating an external API to comply with new requirements of our business partners, tripled unit test coverage, and unblocked a firmware release
- Architected routing for a proprietary messaging protocol used by internal APIs to enable rapid feature development

- **Continuous Integration (CI)** - Using Python and Docker, created a custom framework that saved thousands of hours of manual testing (and counting)
- Automated the custom framework by adding it to our Jenkins CI Pipeline, validating every commit made to a repository consisting of over 2 million lines of code
- Eliminated manual database upgrades by writing Bash and Python scripts and adding them to our Jenkins CI Pipeline
- Developed Python scripts to generate code from existing documentation and vice versa

Undergraduate Researcher May 2020 - August 2020

Swarthmore College *Swarthmore, PA*
- Collaborated with two computer science professors and one peer to design for a relational database management system as a pedagogical tool for advanced computer science classes at Swarthmore. Docs: https://www.cs.swarthmore.edu/~newhall/cs44/f20/swatdb/docs/index.html
- Engineered fully concurrent buffer-management and disk storage software layers as an abstraction on top of the linux filesystem using C++

Student Systems Administrator May 2019 - May 2021

Swarthmore College *Swarthmore, PA*
- Crafted Python API coordinating zabbix monitoring with grafana to generate system dashboards with lab machine statistics for 17 Swarthmore Computer Science faculty
- Aided in the maintenance of 150 lab computers by automating upgrades and new software installations using Bash scripts and Ansible
- Taught Swarthmore students how to execute linux commands and modify their data usage quotas

TECHNICAL SKILLS

Languages: Fluent in Go and Python; Familiar with Bash and Groovy
Frameworks: Experienced with Go and Python frameworks such as Gin, Gorilla/Mux, Flask, and Behave
CI Tools: Experienced with Jenkins and Github Actions; Familiar with JFrog Artifactory and Kubernetes

INTERESTS

Violinist 2013 - Present

Freelance
- Prepared and performed as a professionally in orchestras, chamber groups, fiddle groups, pit orchestras, and solo for weddings, banquets, store openings, holiday celebrations, and theatre productions
- Four time concertmaster, Swarthmore College Orchestra; Three time concertmaster, Swarthmore Lab Orchestra; Two time NAfME All-National Orchestra violinist, Three time Minnesota All-State Orchestra violinist

Olympic Weightlifting

- Qualified and competed in the 2020 University National Championships for Olympic Weightlifting achieving a 235kg total