Jeffrey Lung

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Education

University of California, Los Angeles Expected Graduation Date: June 2020

Major: Computer Science

GPA: 3.94/4.00

Relevant Coursework: Intro to CS II (Data Structures and Algorithms), Intro to Algorithms and Complexity, Algorithms in Bioinformatics, Intro to Machine Learning, Operating Systems Principles

Community Service: Volunteers at road and trail races (U.S. Olympic Marathon Trials, LA Marathon, etc.)

Work Experience

DevOps Intern, Apple (FileMaker), Santa Clara, CA June 2018 – September 2018

- Configured Jenkins server and developed CI pipeline for account and license server backend
- Analyzed and designed per-API performance regression testing infrastructure and methodology (AWS DynamoDB and Lambda, Splunk, and Python)
- Visualized API performance in Python with Pandas and Seaborn
- Employed Capital One's Cloud Custodian to enforce resource stopping/deletion policies in form of YAML file on organization's AWS accounts to reduce costs and clutter

Software Development Intern, Northrop Grumman, Woodland Hills, CA June 2017 – August 2017

- Generated image sets for application-level smoke tests of computer vision algorithm, which identified algorithmic and implementation defects (MATLAB and Bash)
- Refactored a significant portion of the project's code (C++)
- Benchmarked the algorithm and implemented optimizations—removing unnecessary branches, uncoalesced memory accesses, and unnecessary and inefficient arithmetic—that improved performance over the baseline by more than 35%

Projects

Inversion Detection in Genome Alignment (Python) March 2018

- Aligned 60 million reads, each of length 50, to a simulated genome of 100 million base pairs
- Developed an inversion finding algorithm which first identifies candidate regions and then employs Smith-Waterman alignment on reference and reversed consensus substrings
- Outperformed all grad students in the class

Recyclopedia (Python) January 2018

- Developed at IDEA Hacks 2018 as a means to educate children about proper recycling habits
- Integrated barcode scanner input to Raspberry Pi and determined item's recyclability based on its scanning history
- Established project-specific message format for serial communication between Raspberry Pi and Arduino

Activities

Bruin Racing (automotive), UCLA September 2016 – December 2017

- As a member of SAE Baja team's testing group, contributed to design and installation of the tachometer and datalogging for the tachometer and temperature sensor
- Gained experience with soldering, SolidWorks, and manufacturing
- Integrated strain gauges, operational amplifier, and Arduino in an effort to validate FEA simulation

Technical Skills

C ♦ C++ ♦ Python ♦ Object-oriented programming and design ♦ AWS (DynamoDB and Lambda) ♦ LaTeX ♦ Jenkins automation server ♦ Arduino ♦ MATLAB ♦ Bash ♦ Git ♦ Familiar with Linux environment