EUGENE LUO

Contact

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Skills

Languages:

- C
- Python
- SML
- Go
- JavaScript
- Scala
- ASM (x86-64, ARM)
- OCaml
- SystemVerilog
- SQL

Tools:

- GDB
- Git + GitHub
- bash
- Simics
- macOS
- Linux
- Redis
- gRPC/Proto Buffers

Coursework

Current:

- 15-440: Distributed Systems
- 18-794: Pattern Recognition Theory

Completed:

- 15-410: Operating System Design & Implementation
- 18-349: Introduction to Embedded Systems
- 15-210: Parallel & Sequential Data Structures & Algorithms
- 15-213: Introduction to Computer Systems
- 15-150: Principles of Functional Programming
- 18-240: Structure/Design of Digital Systems
- 18-290: Systems & Signal Processing

Education

Carnegie Mellon University | Pittsburgh, PA

Expected Graduation May 20

M.S. Electrical & Computer Engineering

B.S. Electrical & Computer Engineering

- College of Engineering Dean's List F16 S17, UAA All-Academic Recognition

Experience

Software Engineering Intern

Microsoft | Sunnyvale, CA | May 19 - Present

- Working with Microsoft Azure's Networking Team to design and implement more intelligent heuristics for Layer 7 load balancing.

Honey Science Corporation | Los Angeles, CA | May 18 - Aug 18

- Worked with Backend Data Engineering Team to update store information in GCloud Spanner and rewrote data pipelines to access new databases.
- Determined data quality standard for web-scraped store information by running SQL queries and working with the systems quality team.

Teaching Assistant: Carnegie Mellon University

15-213: Introduction to Computer Systems | Pittsburgh, PA | Aug 18 - Present

- Taught computer system concepts including x86-64 machine code, dynamic memory allocation, processes and threading to 60+ students over two recitations.
- Led office hours and large group review sessions for 200+ students.

15-112: Fundamentals of Programming & CS | Pittsburgh, PA | Jan 17 - May 18

- Taught CS principles such as Big-O analysis, recursion, and OOP in recitations.
- Mentored 50+ students in project design for final term project and Hack112, Carnegie Mellon's largest hackathon in Spring 17.

Projects

BoulderOS/Avalanche

Partner Project for 15-410 | Spring 19

- Wrote a kernel for x86-IA32 architecture in C. Supports preemption, multiprocessing, multithreading, and virtual memory to run C programs through a console interface.
- Modified kernel to create a hypervisor capable of para-virtualizing simple kernels.

SParQ

Spotify Party Queue | Dec 18 - Present

- Currently building an app with Spotify's Python API that maintains a dynamic priority queue for songs, allowing for voting songs on, up, and down the queue.

TrailerVR

Virtual Reality Trailer Viewer | Nov 16

- Developed a mobile app with Google Cardboard and Vuforia API to project a film's info and trailer onto a poster of the film in VR. F16 Hack112 Grand Prize.

Activities

Varsity Swimmer

Carnegie Mellon University | Aug 16 - Oct 18

- 2017 UAA Conference Team Member.

President

Plaidvocates | Aug 17 - Dec 18

- Organized wellness events and seminars for the student-athlete community.