EUGENE LUO

Contact
- eug@cmu.edu
- 813-220-4989
- github.com/eyluo
- eyluo.github.io

Skills
Languages:
- C
- Python
- SML
- Go
- ASM (x86-64, ARM)
- Scala
- OCaml
- SystemVerilog

Tools:
- GDB
- Delve
- Simics
- Redis
- gRPC/Proto Buffers
- Git/GitHub
- bash/zsh
- macOS
- Linux
- Windows

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
- Designing and implementing an extension with distributed caching to offer adaptive load balancing, rate limiting, and other services in collaboration with the Azure Networking Team.

Honey Science Corporation | Los Angeles, CA | May 18 - Aug 18
- Updated store information in GCloud Spanner and rewrote data pipelines to access new databases in collaboration with the Backend and Data Engineering Teams.
- Determined data quality standard for web-scraped store information by running SQL queries and collecting data in collaboration 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.
- Later modified the 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 guests to vote 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.