Shannon Lau

Software Engineer

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SKILLS

Languages

C / C++
Python
Java
JavaScript (ES6)
HTML5
CSS / Sass
SQL
Scheme

Frameworks

React
AngularJS
D3
Flask
MongoDB

Tools

Git
Bash
Jira

RELEVANT COURSEWORK

Engineering Interactive Systems
EECS 598

Human Centered Software
EECS 497

Data Structures & Algorithms
EECS 281

Computer Organization
EECS 370

HONORS

EECS Scholar Award
UNIVERSITY OF MICHIGAN

Dean's Honor List & University Honors
UNIVERSITY OF MICHIGAN

Software Engineering Summiteer
CAPITAL ONE

OxyGEN Scholar Award
AT&T

EDUCATION

University of Michigan — B.S.E. Computer Science, with Honors
EXPECTED MAY 2022 // ANN ARBOR, MI

- Minor in Multidisciplinary Design | GPA — 3.9 / 4.0 | Major GPA — **4.0 / 4.0**

Stuyvesant High School — Honors in Math and Science
2014 – 2018 // NEW YORK, NY

EXPERIENCE

Comau — Software Engineering Intern
JANUARY 2020 – PRESENT // ANN ARBOR, MI

- Architect and implement a live bin-packing heuristic in C++ that identifies items' optimal placement locations, maximizing capacity to 85% and speeding up company automation.
- Create a command-line interface for the robotic system that enables users to visualize item placements and possible future placements step-by-step, powered by Processing.

Capital One — Software Engineering Intern
JUNE – AUGUST 2020 // CHICAGO, IL

- Developed an AWS Lambda with Python that transforms 3,000+ customer calls each day into visualizable data for Sage, Capital One's call assessment platform.
- Built and integrated experience-elevating features into the audio player platform with AngularJS and D3.js, including: dual-speaker waveform visualization to distinguish the current speaker and enhance audio-scrubbing, call captioning to complement the audio, and issue-tagging to flag any timestamp for future reference.
- Interfaced with designers, product managers, and other developers in Agile sprints to ensure functional and thoughtful user experiences across our voice-based applications.

FEATURED PROJECTS

Touch Connect Four
JANUARY – FEBRUARY 2020

- Created a multi-touch pad device that optically recognizes finger contours and tracks movements as different gestures for specific Connect Four moves on the built-in app.
- Developed as a proof-of-concept for budget touch technology using OpenCV in Python.

UFO
JANUARY – APRIL 2019

- Launched a high-altitude device 26,822 meters into the stratosphere to measure and store pressure, temperature, humidity, UV index, and GPS data for weather analysis.
- Built with a custom PCB, Arduino, I2C & UART sensors, and robustly tested encasing.

INVOLVEMENT

University of Michigan, EECS — Teaching Assistant for EECS 281
AUGUST 2020 – PRESENT // ANN ARBOR, MI

- Help professors teach 900+ students by instructing labs, answering online questions, writing and evaluating exams, and holding office hours to guide students one-on-one.
- Deepen students' understanding of best coding practices, debugging tools, and core concepts, including stacks, queues, trees, dynamic programming, and hash tables.

University of Michigan Ultimate Frisbee
SEPTEMBER 2018 – PRESENT // ANN ARBOR, MI

- Compete with nationally-ranked D-I team and empowering community of driven women.
- As **Gear Coordinator**: Design and order jersey kits, apparel, and gear for 50 players and coaching staff to cohesively define the program brand.