

Shannon Lau

Software Engineer

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EDUCATION

University of Michigan

MAY 2022 // ANN ARBOR, MI

B.S.E Computer Science,
With Honors

Minor in
Multidisciplinary Design

3.96 / 4.00 — GPA

4.00 / 4.00 — Major GPA

RELEVANT COURSEWORK

Engineering Interactive
Systems

EECS 598

Human Centered Software

EECS 497

Web Systems

EECS 485

Operating Systems

EECS 482

SKILLS

Languages

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

Technologies

React, AngularJS, D3, Flask,
MongoDB, AWS Lambda

Tools

Git, Bash, Jira

HONORS

Marian Sarah Parker Prize
Nominee

UNIVERSITY OF MICHIGAN

OxyGEN Scholar Award

AT&T

Grace Hopper Scholar

CAPITAL ONE

EECS Scholar Award

UNIVERSITY OF MICHIGAN

Dean's Honor List &
University Honors

UNIVERSITY OF MICHIGAN

SWE Summiteer

CAPITAL ONE

EXPERIENCE

Facebook — Software Engineer Intern

AUGUST – NOVEMBER 2021 // PITTSBURGH, PA

- Working on the Codec Avatars project with Facebook Reality Labs Research.

Microsoft — Software Engineer Intern

MAY – AUGUST 2021 // SEATTLE, WA

- Built and tested critical user-editing features for Microsoft's new productivity app, ensuring functionality and customizability with **React**, **Typescript**, and **Sass**.
- Visualized app performance and resilience metrics extensively using the company's internal data tooling, enabling leadership to gauge the app's usage for the first time.
- Identified and resolved telemetry bugs, while coordinating with feature owners and product managers, optimizing our median reliability rate to 99.9%.

Comau — Software Engineer Researcher

JANUARY – DECEMBER 2020 // ANN ARBOR, MI

- Collaborated with a team in the Multidisciplinary Design 2020 Cohort to spearhead a robotic software system that optically recognizes objects and fills bins to a high capacity.
- Architected and implemented a bin-packing heuristic in **C++** that identifies items' optimal placement locations, maximizing capacity to 75% and speeding up company automation.
- Created a command-line interface for the robotic system that enables users to visualize item placements and future potential placements step-by-step, powered by **Processing**.

Capital One — Software Engineer Intern

JUNE – AUGUST 2020 // CHICAGO, IL

- Developed an **AWS Lambda** back-end API 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 Sage's audio player platform with **AngularJS** and **D3.js**, including: dual-speaker waveform visualization to distinguish the active speaker, dynamic transcript interface, and smart audio-scrubbing.
- Interfaced with designers, product managers, and other developers in **Agile** sprints to ensure functional and thoughtful user experiences for each voice-based application.

FEATURED PROJECTS

Touch Connect Four

JANUARY – FEBRUARY 2020

- Innovated a multi-touch pad device that optically recognizes finger contours and translates movements to gestures for 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 Data Structures & Algorithms

AUGUST 2020 – MAY 2021 // 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, hash tables, and dynamic programming.

University of Michigan Ultimate Frisbee

SEPTEMBER 2018 – PRESENT // ANN ARBOR, MI

- Compete on nationally-ranked D-I team with an empowering community of driven women.
- Gear Coordinator: Design jersey kits, apparel, and gear for 50 players and coaching staff.