# Stella (Yuk Tong) Lau

(She/Her/Hers)

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## EDUCATION

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|---|---|---|
| *University of California, Irvine* | **M.S. Computer Science (GPA: 3.9/4.0)** | 09/2021-06/2023 (Expected) |
| *University of Washington, Seattle* | **B.S. Electrical Engineering (*Cum Laude*)** | 09/2018-12/2020 |
| *Seattle Central College, Seattle* | **A.S. Computer Engineering (GPA: 3.95/4.0)** | 09/2016-12/2018 |

## TOOLS

**Python**, **Java**, **C**, **JavaScript**, **TypeScript, CSS**, **HTML**, **Database Management** (SQL, NOSQL), **Node.js**, **React**, **Angular, Bootstrap**, **Figma**, **Regex**

## RELEVANT EXPERIENCE

**Teaching Assistant for User Interaction Software at University of California – Irvine** 09/2022-Current

- User Interaction Software is a front-end web development course that teaches the basics of HTML, CSS, Angular, and web accessibility principles.
- **Responsibilities**:
  - Planning and conducting discussion sessions and quiz sessions that supplement faculty lectures.
  - Developing assignments and exams to facilitate learning.
  - Holding office hours to answer students' questions about the class and guide them through assignments and projects.
  - Grading assignments and exams.

**Software Engineering Intern at Student Center at University of California-Irvine** 07/2022-Current

- This position is connected to my master's thesis that allows me to further explore app development with Google Maps API. Please see my graduate research assistant position listed below for more information and details.
- **Responsibilities**:
  - Using the Google Maps API to implement a new feature to the ZotFinder iOS app that displays the ADA (Americans with Disabilities Act) accessible routes on the University of California – Irvine's main campus with GPS data collected from my thesis project to help visitors and students with different needs navigate through the campus more smoothly.

**Reader/Grader for Internet Applications Engineering at University of California – Irvine** 03/2022-06/2022

- Internet Applications Engineering is a full-stack web programming class that teaches the basics of HTML, CSS, JavaScript, React, JQuery, MYSQL, JDBC, Express, and Node.js.
- **Responsibilities**:
  - Held office hours to answer students' questions about the class and guide them through assignments and projects.
  - Testing and editing sample projects for students.
  - Grading assignments and exams.

**Research Assistant at Social & Technological Action Research Group** 09/2021-Current

- Working on my thesis under the supervision of my advisors: Prof. Gillian Hayes and Dr. Mark Baldwin.
- **Goal**:
  Building an accessible digital map for the University of California – Irvine's main campus with crowdsourcing/crowdsensing to provide point-to-point direction to all visitors, students, and employees.
- **Progress**:
  - Finished building a GPS module to collect accessible routes' latitude and longitude data points.
  - Finalized the design of the 3D-printed protective case for the modules.
- **Next Steps**:
  - Strapping the modules to volunteer students' scooters to map out the main campus.
  - Uploading the geolocation data to the Google Maps API.

**Disability Inclusion Chair at Associated Graduate Students** 09/2021-06/2022

- Co-organized one of the largest (**300+** attendees), accessible, and inclusive events in University of California-Irvine's history, Inclusive Drag Night. Worked closely with the Disability Services Center and off-campus accessibility service vendors to provide CART captioning, ASL interpretation, and visual interpretations for the event.
- Worked with the Disability Services Center, Basic Needs Hub, and other resources on campus to identify students' needs and improve current resources or policies. (e.g., my thesis project and new policies for electronic learning and teaching resources and guidelines).

**Volunteer Computer Science Teacher at TEALS for Lanier High School (Jackson, MS)** 06/2021-06/2022

- Co-taught "Introduction to CS" in **Python** using the Carnegie Mellon University's CS Academy CS1 curriculum **2-3 times a week** to a class of **20** virtually.
- Designed presentation slides for every lecture to make learning more fun and engaging.
- Fostered my experience as a student and researcher in computer science and electrical engineering to foster interest in computer science, creativity, resilience, and problem-solving skills in students.

**Undergraduate Research Assistant at Sensor, Energy, and Automation Laboratory** 06/2020-06/2021

- **Achievements**:

- Independently built the project and people management tools that allowed my advisor, Prof. Alex Mamishev, and other lab leaders to monitor **50+** projects and manage **200+** undergraduate and graduate research assistants in the lab.
- Increased engagement and productivity of the lab from **67% to 95%** (percentage of projects with updates within 1 week out of all projects).

- **Details**:
  - Implemented add-on features to the lab's projects' Google Sheets with Google App Scripts to allow automatic messages to be sent through Slack to remind leaders of projects that had not been updated for more than a week and students who had not submitted stand-up work report last week to submit their updates.
  - Pulled information from the project and people spreadsheets and combined them into a control center spreadsheet that gave the professor and lab leaders to a bird's-eye view of the overall status of the lab.

## RECENT ACHIVEMENTS

**Grace Hopper Celebration 2022 Scholar**

- Received scholarship to virtually attend Grace Hopper Celebration 2022, the world's largest gathering of women and non-binary technologists.

**In-Person Class Lists for All University of Washington Campuses**

- **Background**:
  On July 6th, 2020, U.S. Immigration and Customs Enforcement modified the temporary exemption for international students taking only online courses for Fall. In order to maintain our F-1 student status, we must take a course that is either hybrid or in-person. Thus, I used what I learned in my web programming class and my research assistantship to form a spreadsheet of all hybrid and in-person classes across all 3 University of Washington campuses.
- **Details**:
  - Used Chrome's developer tool to web-scrap all in-person classes and their sign-up links and organize them into a Google spreadsheet. The spreadsheet was shared by **hundreds** of people and accessed by **thousands** of students after I shared it on social media platforms.
  - Please see my Facebook post for more details: https://m.facebook.com/groups/1249121901861048/permalink/2771591516280738/

**Software and Embedded Systems Projects**

Stella's Personal Page
Link: https://github.com/Stellau/stella-personal-page
Tools & Skills: ***AWS Amplify, HTML, CSS, TypeScript, Angular, Responsive Web Design***
Built this project to share about myself, my projects, recent updates after teaching myself Angular. I also deployed this project with AWS Amplify and made sure that this page is accessible and looks good on a variety of devices. I will show this website to my students of User Interaction Software as a demo.

Stellar Amateur (Personal Blog) *In Progress*
Tools & Skills: ***AWS Amplify, Elastic Beanstalk, Aurora, HTML, CSS, Bootstrap, Angular, Node.js, MYSQL, Figma, Responsive Web Design***
Creating a full-stack webpage to share my hobbies and recipes. Building the front-end with Angular and hosting it with AWS Amplify. Building the backend with Node.js and hosting it with AWS Elastic Beanstalk. Building a database with MYSQL on AWS Aurora to store my recipes.

SmartCrib (Capstone Project: Baby Monitor Prototype)
Link: https://courses.cs.washington.edu/courses/cse475/20au/
Tools & Skills: ***Arduino, IoT, C++, Analog & Digital Sensors, React.js, SCSS, Bootstrap***
Built our project's concept design and website, organized the report, led the technical development of communication between the microcontroller and the Internet, and helped with breathing rate and pulse extraction.

Full-stack E-Commerce Store Website
Link: https://github.com/Stellau/final-project-stellau
Tools & Skills: ***HTML, CSS, JavaScript, MYSQL, Node.js***
This was my first full-stack project and my final project for my web programming class. It was an E-Commerce store website that allowed users to buy products after logging in. The products were loaded into the MYSQL database from a CSV file. The cart was built with local storage and the log-in session was implemented with a cookie.

Java Recursive Drawing Program
Link: https://github.com/Stellau/RecursiveDrawing
Employed my knowledge of trigonometry, math, recursive and analytical thinking to create this project on Eclipse IDE. This project taught me how to use different drawing components in Java and understand recursion better.

Color Detector
Link: https://github.com/Stellau/ColorDetector
Tools & Skills: ***SystemVerilog, Verilog, ModelSim, GPIO, Terasic Digital Camera, DE1_SoC***
Implemented this color detector by collecting data using a Terasic digital camera with GPIO interface connected to a DE1_SoC board, processing the data by averaging and analyzing the RGB elements, and displaying the result on a 7-segment display.

## RELEVANT CLASSES

Data Structure and Algorithms (**Java**) | Web Programming (**JavaScript, HTML, CSS, Node.js, MYSQL**) | Computer Programming I-II (**Java**) | Principles of Operating Systems (**Linux**, **C**) | Introduction to Data Management (**SQL, Java, AWS, Azure**) | Hardware/Software Interface (**Linux**, **C, X86-64**) | Continuous and Discrete Time Linear System (**Python**) | Introduction to Embedded Systems (**C**) | Introduction to Artificial Intelligence (**Python**) | Distributed Computer Systems (**C**) | Advanced Data Structures