

# Ching-Ting Tsai

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## EDUCATION

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### University of California, Irvine

September 2019 – June 2023

- B.S. in Computer Science
- GPA: 3.93/4.0
- Dean's Honor List (eight quarters)
- Relevant Coursework: Machine Learning and Data Mining, Introduction to Artificial Intelligence, Project in Artificial Intelligence, Graph Algorithms, Computer Photography and Vision, Data Structure Implication and Analysis, Information Retrieval, Intermediate Programming, Principle in System Design

## SKILLS

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**Programming Languages:** C/C++, Python, Java, HTML, CSS, JavaScript (React/Vue), SQL, MATLAB

**Software:** Linux, Visual Studio, Eclipse, MySQL, GitHub, VMware Workstation, IntelliJ, Apache Tomcat, AWS

## EXPERIENCE

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### Research Assistant

June 2022 – Present

*STANCE Lab, University of California, Irvine*

- Conducting research to analyze the environment and traffic in Orange County, California.
- Compare and implement semantic segmentation models to generate labels on street view images.
- Coordinate weekly meetings to report updates and discuss any issues encountered.

### ICS Lab Tutor

March 2022 – Present

*University of California, Irvine*

- Assisting students to debug assignments in C/C++ and clarify concepts related to course materials.
- Attend weekly meetings to share experiences and discuss tutoring strategies with staff and other tutors.

### Undergraduate Student Researcher

September 2019 – June 2020

*ZotBins, University of California, Irvine*

- Upgraded the campus bins screen with sound and visual effects to promote zero waste to 35,000+ users.
- Improved and added content to the ZotBins website using **HTML**, **CSS**, and **Javascript**.
- Collected and pre-processed thousands of waste images to train the bins for waste recognition.

## PROJECTS

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### Fablix

September 2022 – Present

**Tools:** Tomcat, Java, MySQL, RESTful APIs, Javascript, jQuery, Apache, git, AWS, Android app development

- Collaborate with peers to build a movie store web and Android application from scratch.
- Add reCAPTCHA, HTTPS, and password encryption to enhance the security of the website.
- Improve website performance 23% by implementing **MySQL** replication, and Apache load balancing.

### ICS Search

January 2022 – March 2022

**Tools:** Python, Tkinter GUI, BeautifulSoup, NLTK

- Led a team of three to build a web crawler and search engine, written in **Python**, with Tkinter GUI.
- Parsed 15,000+ retrieved HTML files using NLTK and BeautifulSoup to create inverted index.
- Applied TF-IDF and PageRank algorithm to return 50 most relevant websites for user's search input.