Tiana Zhen

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EDUCATION

University of California, Irvine - *GPA: 3.65*   Irvine, CA | September 2021 - June 2025
B.S. in Computer Science | Minor in Statistics

TECHNICAL SKILLS

Programming Languages: Python, C, C++, MySQL, R, Java, JavaScript, CSS, HTML, Ruby, Assembly (MIPS)
Relevant Coursework: Data Structures & Algorithms, Data Management, Artificial Intelligence, Machine Learning and Data Mining, Information Retrieval, Project in Databases and Web Applications, Software Testing and Quality Assurance, Statistics, IoT Software & Systems, Discrete Mathematics, Principles in System Design, Linear Algebra, Application of Probability in CS
Operating Systems: Mac (Sierra, Monterey), Linux
Tools & Frameworks: Git, AWS, Google Cloud, Agile, Microsoft Excel, Google Apps
Relevant Libraries: Scikit-learn, NumPy, Pandas, TensorFlow, Matplotlib, Librosa, Beautiful Soup, Flask

EXPERIENCE

Sound Ethics, *Student Software Engineer (Capstone)*   Los Angeles, CA | January 2025 – June 2025
- Collaborating on an innovative capstone project for Sound Ethics to develop an AI-driven audio deepfake detection system that authenticates audio content through machine learning techniques that is deployed on a full-stack web application
- Engineered backend data preprocessing pipelines in Python to clean and compute 39,255 raw audio samples into ML model
- Trained and fine-tune a convolutional neural network (CNN) with the final model achieving 85% accuracy and additional robustness with classifying modified human made audio and generative audio
- Conducted comprehensive reviews of current academic ML research to incorporate into model improvements

Cognitive Anteater Robotics Laboratory, *Student Researcher*   Irvine, CA | April 2024 – May 2025
- Enhanced the software development of "CuttleBot", a biometric robot designed to mimic cuttlefish movement and behavior
- Implemented machine learning models to improve CuttleBot's learning capabilities and adaptive responses
- Performed data analysis and visualizations to support research findings and streamline the presentation of results

UC Irvine Information and Computer Science, *Learning Assistant*   Irvine, CA | April 2023 – January 2024
- Provided tutoring service for various computer science courses that each have over 250 undergraduate students
- Conducted lab hours to assist students understand course material, offering individual hands-on guidance throughout the term
- Collaborated with students to debug and test code, resolving issues and ensuring functional program development

ShareTea, *Cashier/Barista*   Portland, OR | February 2021– September 2021
- Memorized over 50 menu items and created custom drinks for 70 to 200 customers a shift
- Consistently delivered friendly and professional customer service at all times, even during high volumes of orders
- Coordinated with coworkers to ensure drinks are made accurately and efficiently to increase overall productivity

PROJECTS

Fablix Movie Web Application   Irvine, CA | April 2024 – June 2024
- Developed a full-stack movie web application for movie purchasing movies and viewing detailed movie information
- Built a robust backend using AWS services, Java, and MySQL for efficient database management
- Utilized database management techniques to securely store, encrypt, and retrieve user data
- Designed a responsive and secure user interface with HTML, CSS, and JavaScript, incorporating HTTPS, reCaptcha, and user authentication for enhanced security

IMDB ML Movie Review Classifier   Irvine, CA | January 2024 – April 2024
- Tested four machine learning classifiers on the IMDB dataset (50,000 movie reviews) to predict movie ratings with accuracy
- Achieved 86% testing accuracy using a Logistic Regression Classifier, while also experimenting with KNN, Feedforward Neural Network (MLP), and Decision Tree classifiers

Search Engine/Web Crawler   Irvine, CA | April 2023 – June 2023
- Developed a search engine that provides accurate URLs based on user search queries based on relevancy in Python
- Optimized searches to be efficient with less than 100 ms response time
- Collaborated with a team to make key design decisions and ensure clean, maintainable code
- Implemented a web crawler to index website data, enabling efficient information retrieval for later search

ACTIVITIES

IrvineHacks 2024, *Hacker*   Irvine, CA | January 2024
- Developed a web application for students to incentivize better academic performance through reward-based check-in system
- Designed a functional front-end using HTML, JavaScript, and CSS to enhance the user interface
- Implemented back-end features using Flask, GeoPy, and SQL databases for storing user data and incorporated Google Authentication for seamless login
- Presented the finished product to judges and sponsors, highlighting its functionality and potential impact