Hengjun Pei

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EDUCATION

University of California, Irvine .... September 2024 - Present
Bachelor of Science, Computer Engineering
GPA: 3.6

Related Courseworks: Discrete Mathematics, Data Structures and Algorithms, Network Analysis I-II, Electronics I-II, Engineering probability, Continuous & Discrete-Time Signals Systems, Organization of Digital Systems & Computers, Computer Networks

PROJECT EXPERIENCE

ZOTTARS | HTML, JavaScript, CSS
Zotbotics | UCI .... September 2025 - Present
- Integrated a chatbot system for robot TARS with **text-to-speech (TTS), speech-to-text (STT), Gemini AI API**, and **YOLO**-based computer vision, enabling the robot to engage in spoken interaction and visually perceive its surrounding environment.
- Wrote **C code** to control motors in the robot's body, enabling coordinated motion, improved responsiveness, and reliable actuation, including movement commands such as MOVE FORWARD, TURN LEFT, and TURN RIGHT execution.

MAROOM | React Natvie, Typescript, Expo
LIKELION| UCI .... September 2025 - Present
- Implemented a swipe-based card UI in **React Native** using **TypeScript**, leveraging libraries such as **Reanimated** and **Gesture Handler** to enable intuitive furniture discovery, smooth gesture-driven animations, and an improved overall user interaction flow.
- Applied **Feature-Sliced Design** to improve overall code structure, scalability, and maintainability across the application.

MAMMOGRAM CLASSIFIER | Python, Jupyter Notebook, TensorFlow .... December 2025
- Utilized the UCI mammographic dataset to build a tumor classification pipeline, performing **feature engineering** and **data preprocessing** using structured exploratory analysis to prepare the data for effective model training and evaluation.
- Implemented and compared multiple machine learning models—including **KNN, Decision Trees, Logistic Regression, Naïve Bayes, Neural Networks, Random Forest, SVM, and XGBoost**—achieving up to **87%** classification accuracy.

MIRAEJIDO | Nodejs, React, MongoDB, TypeScript, Tailwind CSS .... July 2025 – August 2025
- Contributed to a resume builder web application using **React** and **TypeScript**, developing a responsive interface that allows users to upload resumes in text or PDF format and preview generated content with real-time user feedback and editable previews.
- Contributed to backend services with **Node.js** and **MongoDB** and integrated **Gemini AI** to process uploads, manage user data, securely store resume content, and automatically analyze and generate improved resume text for personalized user optimization.

BAPAGO | MySQL, React, Node.js, Tailwind CSS, TypeScript, Figma .... April 2025 – June 2025
- Implemented the login page UI and token-based authentication for secure access, while designing and integrating a **MySQL** database with **RESTful APIs** to securely store and retrieve user information, saved restaurants, and profile data.

EXPERIENCES

Computer Technician | Computer Ahnex, Los Angeles, CA .... June 2023 – June 2024
- **Diagnosed and resolved** hardware and software issues for residential and business clients, by repairing and replacing faulty components, addressing OS and hardware compatibility issues, and recovering critical data from damaged HDDs and SSDs.
- Proactively **researched** emerging technologies through **technical documentations** to keep services accurate and up to date.

Waiter | Hikari Sushi West Hollywood .... May 2021 – August 2023
- Served as **Head Server**, training new employees, coordinating front-of-house operations, and **resolving customer disputes professionally**, while delivering attentive service to **50–100 customers per shift** in a fast-paced restaurant environment.

Club Vice President | International Students Club, Pierce College .... June 2023 – December 2023
- Scheduled weekly meetings, planned activities, and coordinated with the advisor and president to support continuous club growth.
- Supported international students with academic, social, and personal needs by providing guidance and resources, easing their transition to a new environment through coordination of interactive events such as Scavenger Hunts and Running Man.

TECHNICAL SKILLS

Tools: Excel, MATLAB, Vivado, Git, GitHub, MySQL, MongoDB, Firebase, Cursor, Postman, VS Code, Jupyter Notebook, Anaconda
Programming Skills: Python, C++, JavaScript, HTML, Shell Scripting, Verilog, React, Node.js, Typescript, Tailwind CSS, React Native, API
Operating Systems: macOS, Windows
Languages: Korean (Proficient), Chinese (Proficient), Japanese (Conversational)