Qianying Wong (Ying) (she/her)

Irvine, CA | (949) 316-8073 | qianyingwong@gmail.com | www.linkedin.com/in/qywong03/

EDUCATION

B.S. in Cognitive Science | Honors   Expected June 2026
Minor in Information and Computer Science
University of California, Irvine | GPA: 3.84

HONORS & AWARDS

- UCI School of Social Sciences Cognitive Science Department Honors Program
  - Honors Thesis: Episodic-like Memory Based Foraging Strategies Observed in Cuttlefish-inspired Biomimetic Neurorobot
- UCI Undergraduate Research Opportunities Program (UROP) and Calit2 Interdisciplinary Research Teams (IRT) Program $3,000 grant recipient
- Phi Beta Kappa Honor Society
- Dean's Honor List

RELEVANT COURSEWORK

Math and Statistics: Calculus, Linear Algebra, Boolean Logic and Discrete Structures, Discrete Math, Probability and Inference, Statistical Modeling in R
Computer Science: Software Engineering, Intermediate Programming in Python, C/C++, Data Structure Implementation and Analysis, Intro to AI, Machine Learning and Data-Mining, Computer Vision

PROFESSIONAL EXPERIENCE

Advanced Micro Devices (AMD), Austin TX   June 2025 – September 2025
AI CAD Intern

- Engineered and containerized an internal LLM-powered chatbot agent in Python to translate engineering commands into electronic design automation tool executions, improving developer efficiency.
- Designed, built, and released a workflow orchestration platform automating design verification pipelines for internal CAD tools.
- Integrated telemetry logging (MongoDB) and automated packaging (PyInstaller, Jenkins), supporting continuous deployment across the team.
- Worked with senior engineers through GitHub PR reviews, testing, and debugging to ensure reliable deployment of organization-wide tool releases.

UCI Donald Bren School of Information and Computer Science   March 2025 - Present
Learning Assistant

- Led weekly programming labs and office hours, assisting students with debugging, software design and algorithmic thinking.
- Developed example exercises demonstrating clean code, unit testing, and documentation.
- Collaborated with the course instructors to refine lab materials based on student feedback to improve learning outcomes and course clarity.

RESEARCH EXPERIENCE

UCI Cognitive Anteaters Robotics Laboratory (CARL)   June 2024 - Present
Undergraduate Research Assistant
Principal Investigator: Jeffrey L. Krichmar, Ph.D.

- Developed and simulated a computational cognitive model algorithm inspired by episodic-like memory behavior in cephalopods using Python.

- Integrated SLAM navigation on a physical robot base using ROS2 and Nav2 software for the autonomous localization of a cuttlefish-inspired biomimetic robot.
- Conducted system-level debugging and calibration between hardware and software control modules to ensure stability in robot navigation performance.

UCI Spatial Neuroscience Lab   September 2022 – September 2025
Undergraduate Research Assistant
Principal Investigator: Elizabeth Chrastil, Ph.D.
- Wrote data processing scripts in RStudio and Python (NumPy, Pandas), streamlining data compilation and analysis processes.
- Collected data for research studies, engaging with over 100 human participants, ensuring data integrity and compliance with study protocols.
- Configured and troubleshot sophisticated lab equipment, including computers and VIVE VR headset, contributing to the lab's operational efficiency.
- Delivered technical workshops introducing Unity for experimental design and immersive environment construction to graduate researchers.

PREPRINTS

Kandimalla, S., Wong, Q., Zheng, K., & Krichmar, J. L. (2025) "Episodic-Like Memory in a Simulation of Cuttlefish Behavior". bioRxiv. https://doi.org/10.1101/2025.09.03.674043

PROJECTS

Cognitive Robotics Project   .   September 2024 – December 2024
Programmer
- Implemented Q-learning and policy-based reinforcement learning algorithms in Python to improve robot adaptability and performance in dynamic environments.
- Debugged and optimized hardware-software integration, improving system functionality and ensuring seamless communication between embedded components.

PetrFindr: *Campus path optimization tool*   .   January 2025
Backend Developer
- Built a backend service with Flask to process Google Cloud API requests for route optimization.
- Integrated computer vision (SIFT in OpenCV) to detect and align visual landmarks with map data, improving navigation accuracy.
- Deployed a interactive web application enabling dynamic path recommendations for campus navigation.

Movie Rating Predictor   January 2024 – April 2024
Machine Learning Engineer
- Conducted data extraction, cleaning, and preprocessing on large-scale movie rating datasets to ensure accuracy and integrity.
- Built predictive models using decision trees, regression, and classification, leveraging Scikit-learn and PyTorch for optimization.
- Performed exploratory data analysis to uncover trends and generate insights, supporting data driven decision-making.

Emotion Classification with EEG Data   September 2024 – December 2024
Student Researcher
- Preprocessed EEG time-series data from the DEED dataset and implemented machine learning

classifiers (logistic regression, SVM) to differentiate neural responses to emotional stimuli.
- Extracted frequency-domain features and visualized ERPs using Matplotlib to interpret activation differences between affective states.

Toxic 2035: *A VR escape room game*   April 2023 – October 2023
UI/UX Designer
- Prototyped and integrated interactive mechanics and puzzles in Unity for a VR environment.
- Developed UI/UX assets and implemented gameplay logic for a fully immersive escape room simulation game.

LEADERSHIP EXPERIENCE

Information & Computer Science Student Council   November 2025 – Present
Corporate Outreach Committee
- Coordinated outreach and partnership efforts with tech companies to support ICSSC initiatives, strengthening connections between industry professionals and over 3,000+ ICS students.
- Facilitated corporate-sponsored events to expand student career opportunities and enhance industry engagement on campus.

Cognitive Science Association at UCI   June 2024 – Present
Chief Technology Officer
- Managed and updated the association's official UCI-hosted website, customizing HTML and CSS to ensure accurate and accessible information presentation.
- Streamlined digital workflows for event announcements and member outreach by integrating scheduling and registration tools across web and email platforms.

Southern Wind Lion Dance   September 2022 – Present
Coordinator
- Organized event logistics, enabling smooth execution of performances and keeping steady revenue from recurring performance bookings and sponsorships.
- Oversaw operations for cultural showcases and training programs to promote Asian cultural heritage across Orange County.

UCI Student Success Initiatives   April 2023 – September 2024
Orientation Leader
- Led orientation activities for thousands of incoming students, utilizing strong organizational skills to ensure smooth event execution.
- Created and delivered engaging presentation materials, improving information accessibility and communication efficiency for participants.

TECHNICAL SKILLS

Languages: Python, C++, HTML/CSS, JavaScript, R, MATLAB, Bash
Frameworks & Libraries: PyTorch, Scikit-learn, OpenCV, NumPy, Pandas, Matplotlib, Flask
Tools & Systems: Git, Docker, MongoDB, Linux, Jenkins, PyInstaller, Unity, Godot
Robotics: SLAM, Nav2, Reinforcement Learning, ROS2