JAN KWONG

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EDUCATION

University of California, San Diego **La Jolla, CA**
M.S. in Computer Science (Anticipated)
Sep 2025 – Jun 2026
B.S. in Computer Science
Sep 2021 – Jun 2025 (GPA 3.8)

EXPERIENCE

UC San Diego **La Jolla, CA** **Apr 2024 – Jun 2025**
Computer Science Tutor

- Provided clarification and support to about 400 students enrolled in courses "Theory of Computation" and "Advanced Data Structures" during office hours
- Evaluated students' homework assignments and exams, offering detailed feedback to aid their understanding
- Participated in weekly meetings with a teaching team of 10 to discuss course progress and address challenges

UC San Diego LASR Lab **La Jolla, CA** **Jan 2024 – Dec 2024**
Undergraduate Research Assistant

- Co-author on a research project on the Acoustical Society of America focused on forced aligners and neural networks for phonetic recognition
- Conducted comprehensive literature reviews on automatic speech recognition models, such as Whisper by OpenAI and Wav2vec by Meta
- Implemented programs to compute word error rates for speech recognition outputs generated by Whisper

PROJECTS

Multi-Agent System for Science **La Jolla, CA** **Apr 2025 – Present**

- Explores the system-level demands of multi-LLM-agent workloads across tasks like math problem-solving and complex conversations by managing deployments with Kubernetes
- Profiles computational and memory behavior across agent interactions using NVIDIA Nsight Systems to identify inefficiencies and limitations
- Contributes to a system-level research paper targeting IISWC 2025

Streak-Based Developer Journal **La Jolla, CA** **Apr 2024 – Jun 2024**

- Collaborated with a team of 11 members through Agile practices, participating in daily stand-ups, sprint planning, and conducting retrospectives to ensure smooth and efficient project progress
- Developed the tagging feature using JavaScript, allowing users to organize journal entries effectively
- Contributed to end-to-end Puppeteer testing, improving the reliability and robustness of the application

Evaluation of Speech Recognition AI **La Jolla, CA** **Jan 2024 – Jun 2024**

- Evaluated the performance of OpenAI's Whisper against 75 human transcribers on a dataset of 300 English sentences spoken by 20 speakers with varying accents
- Discovered that sentence context differentially affected model and human performance
- Observed that humans outperformed models on isolated words, suggesting potential limitations in models' training data or acoustic context requirements

SKILLS

- **Programming Languages:** Python, Java, C, C++, JavaScript, HTML, CSS, SQL, ARM, Clojure
- **Libraries & Tools:** Pandas, NumPy, PyTorch, Scikit-learn, Git, Kubernetes, Docker
- **Concepts:** Data Structures, Algorithms, Machine Learning, Data Analytics, Software Engineering, Operating Systems, Computer Architecture, Database Systems, Cryptography, Computer Vision, Computational Linguistics
- **Languages:** Native/bilingual proficiency for Cantonese, English, and Mandarin; intermediate in Japanese