JAN KWONG

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EDUCATION

UC San Diego La Jolla, CA Sep 2021 – Present

Anticipated Graduation Date: Jun 2026

Major: Computer Science Minor: Cognitive Science

GPA: 3.8

Courses: Advanced Data Structures, Design and Analysis of Algorithms, Operating Systems, Software Engineering, Machine Learning, Database Systems, Data Science in Practice, Computer Architecture, Theory of Computation, Computer Vision, Modern Cryptography

EXPERIENCE

UC San Diego La Jolla, CA Apr 2024 – Dec 2024

Computer Science Tutor

• Provided clarification and support to students enrolled in the "Theory of Computation" course during office hours

- Evaluated students' homework assignments and exams, offering detailed feedback to aid their understanding
- Participated in weekly staff meetings with the teaching team 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

UC San Diego La Jolla, CA Sep 2023 – Dec 2023

Instructional Apprentice

- Assisted teaching assistants in hosting studio sessions for the "The Design of Everyday Things" course
- Evaluated student projects, providing constructive feedback to support their learning objectives
- Attended weekly meetings with the teaching team to assess course progress and identify areas for improvement

PROJECTS

Analysis of Pixar Movie Success

La Jolla, CA

Sep 2024 – Dec 2024

- Collaborated with a team of 4 members to analyze the influence of character types on Pixar movies revenue
- Performed data cleaning and exploratory data analysis to gain insights into the data of 28 Pixar movies
- Concluded the absence of a correlation between character types and box office using permutation testing

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
- Identified potential applications for using ASR to model human speech adaptability

SKILLS

- Python, Java, C, C++, JavaScript, HTML, CSS, ARM, SQL, SystemVerilog, Data Structures, and Algorithms
- Native/bilingual proficiency for Cantonese, English, and Mandarin; intermediate in Japanese