

Bryant Tan

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About Me:

I'm a fourth-year computer science student who is interested in using software engineering and development to solve problems in the real world, with a particular interest in artificial intelligence and machine learning. I'm eager to learn and create cutting-edge software solutions and utilize my skills within the industry!

EDUCATION

University of California San Diego, Jacobs School of Engineering

Bachelor of Applied Science, Computer Science (In Progress)

La Jolla, CA

Transfer year: 2022

Shoreline Community College

Associate of Arts, Computer Science

Shoreline, WA

May 2021

Awards: President's List

WORK EXPERIENCE

UC San Diego, Jacobs School of Engineering

La Jolla, CA

Early Research Scholars Program – Undergraduate Researcher

(September 2022 – July 2023)

- Played a pivotal role in a multi-disciplinary team of four, working closely with a departmental advisor, two mentors, a group advisor, and the head of the program to identify and address inefficiencies in document processing at International Student Programs Office (ISPO) through the application of NLP.
- Conducted extensive investigations into potential solutions, employing innovative language models such as BERT, RoBERTa, DeBERTa V3, and LayoutLM, ultimately selecting the most high-performing approach for the specified task which resulted in a published paper.
- Developed a novel approach by integrating question answering techniques with layout information, optimizing the model to cater specifically to the identified problem (Retrieval of some fields in a job offer letter and auto signature).
- Transformed the solution into a user-friendly software package tailored for utilization by ISPO staff, facilitating efficient document processing and providing a compelling demonstration of its capabilities.

PT. AlphaBit – Entry level software programming

Jakarta, Indonesia (July 2021 – September 2021)

- Collaborated closely under the guidance of a senior engineer, rapidly learning new technologies and methods to finalize the app effectively.
- Contributed to the development of a customer loyalty programs application for a leading client, enhancing business performance and customer engagement.
- Focused on front-end development, utilizing JavaScript to create responsive and user-friendly interfaces.
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PERSONAL PROJECTS

RecipeGen

La Jolla, CA (September 2023 – December 2023)

- Led a collaborative effort within a cross-functional team to develop a voice-activated recipe generation application using Agile framework for effective team collaboration, iterative development and rapid feature implementation
- Integrated ChatGPT 3.5, Dall-E 3, and Whisper Jax AI models to enable voice-based user inputs for meal types and ingredients, generate recipes and pictures of the recipe.
- Implemented database architecture using MongoDB, incorporating login functionality and a multi-server feature to empower users to save, access, and modify recipes in real-time.

Operating Systems modifications

La Jolla, CA (January 2024 – March 2024)

- Process Scheduling: Developed, implemented and tested various scheduling algorithms, including FIFO and LIFO, for an OS kernel module, demonstrating proficiency in managing process execution efficiently.
- Synchronization Mechanisms: Implemented and optimized synchronization primitives using semaphores in a kernel environment to solve complex concurrency issues in a multi-threaded traffic simulation.
- User-Level Thread Management library: Engineered a complete thread management system in user space, facilitating thread creation, execution, and dynamic scheduling, and ensuring correct synchronization across concurrent threads

Skills

Beginner proficiency programming languages: HTML, CSS, MySQL, R, JavaScript, UNIX

Intermediate to high proficiency programming languages: Java, Python, C, C++