JUSTIN CHEAH YUN FEI

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EDUCATION

NATIONAL UNIVERSITY OF SINGAPORE (NUS)   Aug 2022 - Present
Bachelor of Computing in Computer Science, Bachelor of Business Administration
ASEAN Undergraduate Merit Scholar, CAP 4.42/5.00 (CS), 4.63/5.00 (BBA)

HWA CHONG INSTITUTION   Jan 2016 - Dec 2021
GCE A-Level
Distinction in H2 Mathematics, H2 Physics, H2 Economics, H2 Knowledge and Inquiry 90/90RP
ASEAN Scholar, Outstanding Student Award, Hwa Chong Diploma with Distinction

WORK EXPERIENCE

CODOMO PTE LTD   May 2023 - Aug 2023
AI and Software Engineer (Fullstack)
- Spearheaded Rolljak's AI activity generator from scratch for 7 features with 4 different upload features which have been pushed to production and marketed extensively and integrated OpenAI's API into backend with Langchain. Implemented fullstack features and P1 bug fixes with javascript, jQuery, bootstrap, and Ruby on Rails.
- Introduced ways to sanitize user inputs, prevent prompt injection attacks, and reduced query time to 30% by performing concurrent programming. Improved accuracy of results by more than 50% and with prompt engineering, developed functions to parse output generated and integrate into the codebase.
- Automated workflow such benchmarking of question generation results by different prompts, and comparison with competitors' results using Python. Collaborated with team members in an AGILE environment with SCRUM framework. Exposed to procedures such as reviewing pull requests, sprint planning and review, leading deployment meetings.

RAFFLES HALL   Aug 2022 - Mar 2023
Student Frontend Developer
- Collaborated with other frontend developers to maintain Raffles Hall's web application serving more than 700 people by primarily fixing bugs. Implemented frontend components for the Raffles SuperApp in React, Nextjs, javascript, CSS.

SKILLS

Technical: Python, Java, Javascript, Git, Typescript, CSS, Reactjs, Nextjs, Ruby on Rails, bootstrap, APIs, Firebase, React Native ,Tailwind, jQuery,

PROJECTS

SOULSCRIBE   May 2023 - Present
- Building SoulScribe, a gamified AI-powered journaling app with a partner for Orbital with React Native, Firebase for authentication, cloud functions and database, Nodejs for backend, Jest for unit-testing and Python for prompt testing. Accomplished CI/CD with Github workflow, and deployed app to App Store.
- Leverages on libraries such as OpeAIi's text-to-text API and Stable Diffusion's text-to-image API for generative AI functions, Langchain and Pinecone for vector database management, Nativewind CSS for styling.
- Implemented features such as journaling (where users can earn coins by journaling consistently), recap (where personalized art and highlight are generated based on users' entries every week), shop (where users can buy collectables like characters and pets to customize the appearance of their home page), an AI chatbot, and a feature that allows users to ask questions about their past (which uses vector embeddings to store and retrieve entries based on semantics).

TRADING MODEL   Feb 2023
- Processed 80GB of historical trading data in the Huawei Innovation Challenge using machine learning to predict selling prices of stock and add buy/sell orders to maximize profit with Python, sklearn decision tree, pandas, numpy. Created shell scripts to automate validation and comparison of profit with base model

COVER LETTER BOT   Jan 2023
- Built a telegram bot that automates the creation of personalized cover letters based on user's profile and company's values by leveraging on generative AI, making use of APIs, web crawlers, Python.

OTHERS   Aug 2022 - Aug 2023
- Web application partial clones for Nodeflair and Codomo, GUI that automates processes for the remote workplace app Cosmos, AI chatbot that answer questions by drawing company details, generative AI minigames, student delivery service telegram bot