CHEN Kang Ming

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EDUCATION

Nanyang Technological University, Singapore - Bachelor of Engineering (Computer Science)   Aug 2020 – June 2024
- Achieved **Honours (Distinction) – Second-upper Class Honours equivalent**
- Elective Focus in **Artificial Intelligence** and **Data Science and Analytics**

INTERNSHIP EXPERIENCES

Central Provident Fund Board (CPFB)   Jan 2023 - May 2023
Product Development Intern
- Spear-headed the initiation of the team's ML/LLM stack, developing a conversational question-answering (QA) system prototype for CPF-related queries.
- Developed a website scraper to sanitise public-facing information about the Board, for training and context-driving the QA prototype.
- Chaired talks and developed material for CPF staff, upper management and executives on the use of LLMs in the workplace
- Engaged in full-stack application development for a document-generation and templating product, improving workflow for multiple agencies and stakeholders within the Government.
- **Skills: GPT-related APIs/Technologies, Generative AI, Next.js, Python, MongoDB, JavaScript, Web Scraping**

ACADEMIC PROJECTS

Final Year Project – Crowd Estimation in Images   Aug 2023 - May 2024
- Worked on improving transformer-based crowd estimation models for localized crowd estimation evaluation (report for view here)
- Achieved up to 33% increase in performance from base model, with quick inference times and high accuracy
- **Skills: Transformers, Computer Vision, Image Recognition**

Software Security Assignment – Capture the Flag Challenge   Jan 2024 - Apr 2024
- Worked on steganography-, SQL-injection- and web-based capture-the-flag challenges
- Successfully completed all challenges ranking in the top quartile of teams in time, attaining A+ for the subsequent report
- **Skills: Web Exploitation, Steganography, SQL-injection, Security Principles, Security Testing**

Machine Learning Project - Tackling the Zillow Zestimate   Aug 2023 - Nov 2023
- Worked on improving Zillow's Zestimate for housing prices, employing a mixture of gradient-boosting and traditional machine learning models
- Achieved **top 7% of submissions** (93$^{rd.}$ percentile) based on competition leaderboard
- **Skills: Machine Learning, Data Processing/Analytics, Feature Engineering, Gradient Boosting**

Natural Language Processing Project - Question Classification   Aug 2023 - Nov 2023
- Worked on *word2vec* models such as Google-News, as well as preprocessing and sanitization of datasets
- Developed a question classifier leveraging recurrent neural networks such as LSTM and GRU, obtaining **high validation and test accuracies** against test benchmarks
- **Skills: Natural Language Processing, Data Analytics, Recurrent Neural Networks (RNN)**

Undergraduate Research Experience on Campus (URECA) – Offline Reinforcement Learning   Aug 2021 - Jun 2022
- Conferred 'President Research Scholar' upon completing URECA with distinction
- Provided suggestions on future expansions and use-cases of offline reinforcement learning, with a focus on scalability and real-world practical solutions (report for view here)
- **Skills: Deep/Offline Reinforcement Learning, Python**

CO-CURRICULAR ACTIVITIES

Jam Band Captain, Tanjong Hall of Residence   Sep 2021 – May 2024
- In charge of the overall planning, logistics and organization of events and practices for the Jam Band
- Led Jam Band members through various school- and organizational-level performances with stellar feedback

SKILLS

Spoken/Written Languages: Fluent in English and Chinese, conversant in Cantonese, basic understanding in French and Japanese
Programming Languages: Python, JavaScript, React, Next.js, C, MongoDB, SQL