

# CHEN Kang Ming

+65 9456 6054 | [ckangming0@gmail.com](mailto:ckangming0@gmail.com) | [linkedin.com/in/ckangming/](https://linkedin.com/in/ckangming/) | [github.com/chxnkm](https://github.com/chxnkm) | [chenkm.com](https://chenkm.com)

## EDUCATION

Nanyang Technological University, Singapore  
Bachelor of Engineering (Computer Science)

Aug 2020 – Jun 2024

- **Achieved Honours (Distinction) – Second-class Upper Honours equivalent**
- Conferred **President Research Scholar**
- **Elective Focus:** Artificial Intelligence and Data Science and Analytics
- **Relevant Modules:** Database System Principles, Natural Language Processing, Computer Security, Machine Learning, Artificial Intelligence

## INTERNSHIP EXPERIENCES

Central Provident Fund Board (CPFB)

Jan 2023 - May 2023

Product Development Intern

- Spear-headed the initiation of the team's machine learning (ML)/large-language model (LLM) stack using Next.js and OpenAI GPT APIs, developing a conversational question- answering (QA) system prototype for CPF-related queries.
- Developed a website scraper using Selenium to extract, transform and load (ETL) public-facing information about the Board, for training and context-driving the QA prototype.
- Engaged in full-stack application development leveraging Next.js and MongoDB, with deployment on Azure for a document-generation and templating product, streamlining workflow for multiple agencies and stakeholders across the Government.

## ACADEMIC PROJECTS

Final Year Project – Crowd Estimation in Images

Sep 2023 - May 2024

- Worked on transformer-based crowd estimation models using Python and machine learning for Singapore-based crowd estimation evaluation and training
- Classified unstructured image data for training and evaluating the computer vision model, which leverages image recognition
- Achieved up to **33% increase in performance** from base model, with **quick inference times** and **high accuracy**

Software Security Assignment – Capture the Flag Challenge

Jan 2024 - Apr 2024

- Worked on steganography, SQL-injection, binary exploitation and web-based capture-the-flag challenges using cybersecurity exploitation principles within a tight constraint
- Successfully completed all challenges ranking in the **top 25% of teams** in time, and attaining **A+** for the subsequent report

Machine Learning Project – Tackling the Zillow Zestimate

Aug 2023 - Nov 2023

- Worked on improving Zillow's Zestimate model for housing prices, employing a mixture of gradient-boosting and traditional machine learning models, using Python, TensorFlow and Keras
- Performed data ETL leveraging Pandas for feature engineering, and better coherence with the machine learning model
- Achieved **top 7% of submissions (93rd percentile)** based on competition leaderboard

Natural Language Processing Project - Question Classification

Aug 2023 - Nov 2023

- Worked on *word2vec* models such as Google-News in Python, as well as extracting, loading, and sanitizing of structured datasets
- Developed a question classifier leveraging recurrent neural networks (RNNs) such as Long Short-Term Memory (LSTM) and Gated Recurrent Units (GRU), obtaining **high validation and test accuracies** against test benchmarks

Multidisciplinary Project

Aug 2022 - Nov 2022

- Developed an image recognition model leveraging Python and the YOLOv5 library on recognizing letters and characters that are captured by a camera on a vehicular robot in a maze.
- Object detection is run at real-time as images are captured, providing **near-instantaneous deduction time**

## LEADERSHIP AND 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 practice for the Jam Band
- Led Jam Band members through various school- and organizational-level performances with stellar feedback from organizations

## SKILLS

**Languages:** Proficient in English and Chinese, conversant in Cantonese, basic understanding in Japanese and French

**Programming:** Python, JavaScript, C, Pandas, SQL, Java, HTML/CSS

**Frameworks and Applications:** React.js, Next.js, MongoDB, Firebase, MySQL, Pandas, Docker, TensorFlow, Keras, PyTorch