

Choy Zhen Wen Marcus

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EDUCATION

National University of Singapore (NUS)

Aug 2021 – May 2025 (Expected)

Bachelor of Science (Honours)

- Major in Data Science and Analytics
- Grade Point Average: 4.57/5.00 (Expected Honours with Highest Distinction)

TECHNICAL SKILLS

- Programming Language: Python, R, Java, SQL, React.js, html, css, Javascript
- Data Analysis Techniques: Linear Regression, Logistic Regression, Time Series Analysis
- Machine Learning: Scikit-Learn, NumPy, Pandas, Tensor Flow, Keras
- Software Development: Docker, FastAPI, VScode, Linux, Git, Postman
- Generative AI: Langchain, LlamaIndex, LangGraph, Langsmith, Openai, Azure

WORK EXPERIENCE

Synapse, AI Developer Intern

Aug 2024 - Present

- Developed new Generative AI features/tools to be deployed onto Generative AI Platform to boost users productivity
- Implemented unit tests and evaluation framework for PII detection, adversarial prompts and sensitive health information.
- Improved LLM backend guardrails resulting in 50% reduction in false positives.

SAP, AI Engineer Intern

Jan 2024 – Aug 2024

- Design and implemented features for a Retrieval-Augmented Generation (RAG) use cases, such as chat history, intent detection, and prompt engineering, to enhance productivity for users
- Develop reusable LLM entity extraction module that can effectively extract entities from user queries to increase the accuracy of context retrieval for generation
- Designed and implemented a CI/CD pipeline using Jenkins, enabling automated testing, integration, and deployment for backend services
- Build and deployed Dockerised applications onto Cloud Foundry on SAP Business Technology Platform
- Communicated directly to understand business needs and managing business stakeholders' expectations
- Explore Agents and Knowledge graph for RAG use case

ML Research Consultant, Research Assistant

Feb 2021 – June 2021

- Assisted a senior researcher with analysing and cleaning of data obtained from survey fieldworks
- Worked on large amount of data using computing applications namely Excel and SPSS

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PROJECTS

Kaggle: Quora Question Pairs (Natural Language Processing Classification project)

- Applied advanced machine learning techniques to classify whether question pairs are duplicates or not
- Conducted exploratory data analysis and cleaning on existing data to identify underlying characteristics in the data
- Engineered new features such as from text through feature engineering improving accuracy of classification
- Collaborated with my teammates in model training and evaluation of classification models such as Random Forest Classifier, SVM and XGBoost

Credit Card Approval (Machine Learning project)

- Created a machine learning model to predict the probability of an applicant defaulting based on credit history and personal information
- Defined a credit score algorithm to prescribe a credit score to a candidate
- Trained and tested several machine learning projects and evaluated the best one

CO-CURRICULAR ACTIVITIES AND VOLUNTEER EXPERIENCES

Agency for Integrated Care, Silver Generation Ambassador

Jan 2023 – Aug 2023

- Silver Generation (SG) Ambassadors helps to explain government policies to elderly residents, understand their problems and connect them with relevant health and social support schemes all to better seniors' lives

NUS Science Camp (SCAMP), Programmes Head

Oct 2022 – Aug 2023

- Led a department of 6 people to ensure that high quality and safe games were put out
- Collaborated with Science Dean's Office, the other department Heads and the Project Director of the committee to ensure a smooth-running Freshmen Orientation Camp for over 300 incoming NUS freshmen

ADDITIONAL INFORMATION

- **Languages:** English, Mandarin, Cantonese (Conversational)
- **Interests:** Basketball, Fitness, Drawing, Designing