

JDEN GOH

jdengoh28@gmail.com | linkedin.com/in/jdengoh/ | github.com/jdengoh/

EDUCATION

Nanyang Technological University
Bachelor of Computing in Computer Science

Jul 2022 – Present
GPA: 4.41

CAREER OBJECTIVES

NTU Computer Science undergraduate with self-driven attitude and strong interest in both software engineering and artificial intelligence. I am dedicated to giving back to the community and believe in the potential of AI-integrated applications in healthcare and education sectors. Constantly seeking challenges that can foster personal growth and create meaningful value for my organisations.

WORK EXPERIENCE

Syanpse

Jan 2025 – Present

Full Stack Developer Integrating AI

- Developing and enhancing Azure OpenAI-powered chatbot implementing RAG
- Integrating Quart backend to Angular for seamless communication
- Participating in SPRINT meetings for progress tracking, issue resolution, and development alignment
- Exploring Agentic AI frameworks including LangGraph, AI Swarm and Autogen

Welfare Service Club - Friends of Children Centre Head

June 2023 – August 2024

- Led a team of 20 student volunteers to teach English and Math to over 25 service users from underprivileged families
- Planned and conducted Life-skills lessons to inculcate and nurture values in service users across Primary and Secondary level
- Collaborated with 14 other centres to organise June and December events for over 300 service users

Computhink Code Mentor

Jul 2023 – Jun 2024

- Held coding courses for over 15 students across Primary and Secondary levels
- Taught basic coding concepts using Scratch and Minecraft Education
- Conducted Data Science lessons cover both concepts and coding, covering Numpy, Pandas and Scikit Learn library

Hummingbird Bioscience IT Intern

May 2023 – Aug 2023

- Spearheaded project to update company's production database (MariaDB), hosted on Azure
- Facilitated in creation of user documentation and conducted UAT for a new application for inventory management, tracking over 1000 company assets
- Resolved issues and enhanced existing email notifications automation for 2 departments, scheduled with cronjobs
- Compiled and install required software from source on Linux VMs (Ubunthu)
- Aided in improvement to company's in-house Nodejs application written in JavaScript, hosted on Azure
- Utilised Git and Github for version control
- Exposure to cloud computing platform (Microsoft Azure), basics of firewall and networking

PROJECTS

Realtime Stockmarket Analysis | *Langchain, RAG, FAISS, LSTM, Streamlit* *Lead Developer, Gen AI and RAG Integration*

Feb 2025 – Present

- Built financial news pipeline that automates extraction, processing, and structuring of real-time stock market news
- Developed RAG-based AI Retrieval System leveraging FAISS and LangChain to enhance financial insight and stock trend analysis
- Engineered custom AI prompts to refine LLM-based market responses by integrating financial sentiment and stock trends to improve AI trading decisions

- Designed and deployed an interactive dashboard using Streamlit for market insights visualisation

Sentiment Analysis on Rotten Tomatoes | *RNN, CNN, BiLSTM, BiGRU*

Sep 2024 – Nov 2024

Model Training and Fine-tuning

- github.com/jdengoh/SC4002-NLP
- Developed and trained deep learning models to classify movie reviews as positive or negative
- Utilised pre-trained Word2Vec embeddings to improve word representations, and tested different Out-Of-Vocabulary handling approaches to handle unseen words
- Built and evaluated an Ensemble model, integrating multiple models and achieving final accuracy of 78%

Multidisciplinary Competition Project | *RPI, YoloV5, UNIX, bash*

Aug 2024 – Oct 2024

RPI Developer and Computer Vision

- github.com/jdengoh/MDP_Grp4_rpi
- Achieved 9th place and 15th place in Task 1 and Task 2 respectively
- Implemented a multi-process architecture with Python's multiprocessing library to manage 5 concurrent processes
- Established a queue system and lock management to ensure synchronised, real-time communication between the Raspberry Pi, STM board, Android application, algorithm, and image inference server
- Utilised YOLOv5 for real-time object detection, trained on a dataset of 2,000+ annotated images annotated via Roboflow
- Designed and deployed image inference CRUD API server using Python Flask

NUS - NCS Innovation Challenge | *Data Pipeline, API, Gen AI, OpenCV, YoloV3*

Feb 2024 – Apr 2024

Data Pipeline and Machine Learning Engineer

- github.com/jdengoh/TransportGPT
- Implemented to provide real-time updates and navigation assistance to drivers
- Set up pipelines to pull live traffic data from APIs (LTA Datamall)
- Adopted You-Only-Look-Once (YOLO) system to analyse real-time images pulled from APIs
- Implemented Langchain framework for use in model's contextual awareness
- Integrated Geopy to process location data

EatAlready - Web Application | *Django, SqLite, Javascript, HTML/CSS, API*

Jan 2024 – Apr 2024

Backend Developer

- github.com/jdengoh/SC2006-project
- Developed an itinerary and food recommendation web app using Django
- Utilised Django as backend and Google API
- Adopted Django REST Framework
- Developed RESTful API framework used to interact with Frontend and Database (SQLite)

Titanic Analysis | *KNN, Random Forest Classifier, XGBoost*

Feb 2023 – Apr 2023

Machine Learning Engineer

- github.com/jdengoh/Titanic-Analysis
- Analysed survival rate for Titanic disaster using Machine Learning Models
- Employed functions such as chi-squared test to analyse and select best features to be used for Machine Learning Models
- Adopted K-Nearest Neighbour, Random Forest Classifier, and XGBoost to achieve accuracy score above 70%

TECHNICAL SKILLS

Languages: Java, Python, C/C++, SQL (Postgres, MariaDB, MySQL), JavaScript, HTML/CSS

Frameworks: Flask, FastAPI, Serverpod, Angular

Developer Tools: Git, Docker, Bash

Libraries: pandas, NumPy, PyTorch **Others:** Linux(Debian, Ubuntu, Fedora), Neural Network, Machine Learning, Natural Language Processing