Luong Hien Nga

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EDUCATION

Nanyang Technological University   **Singapore**
BSc in Data Science and AI - CGPA: 4.86/5   *Expected Graduation: May 2024*
Awarded ASEAN scholarship for 4 academic years

EXPERIENCE

S-Lab For Advanced Intelligence   **Singapore**
Computer Vision Intern   *Sep 2022 - Aug 2023*
- Annotate 10 remote sensing areas with 7 classes for semantic segmentation using QGIS
- Explore and implement models from mmsegmentation for remote sensing segmentation task

Asurion   **Singapore**
Data Science Intern   *Jan 2022 - Apr 2022*
- Designed functions for a web app that allow online phone insurance purchase given business requirements
- Built, deployed and tested computer vision classification models (YOLO, MobileNetv2, Resnet50) on AWS using tools such as SageMaker, S3, and Lambda with 95% accuracy

HADTech   **Vietnam**
Backend Engineer Intern   *Summer 2021*
- Designed and developed microservices system for an educational web application using NestJs framework
- Implemented Learning Management System and Auth Gateway APIs with MongoDB integration
- Deployed and tested APIs using Docker technology

ACADEMIC PROJECTS

Visual Dialog System (Final Year Project)   *Jun 2023 – now*
- Conduct research and perform reviews of SOTA Multimodal Large Language Models
- Implement InstructBLIP to build a visual dialog system
- Design UI and develop a website for chatbot with HTML, CSS and Flask

Tumor cells phenotyping with Machine Learning   *Aug 2021 - May 2023*
- Designed and implemented data pipelines to efficiently and accurately process large volumes of biological data
- Analyzed data and developed data visualizations using QuPath and Tableau to aid cross-functional teams in understanding and addressing data-related issues
- Implemented autoencoder and ensemble clustering for tumor cell morphological feature clustering

Hotel Reviews Sentimental Analysis   *Sep 2022 – Nov 2022*
- Crawled hotel reviews from TripAdvisor using Python Selenium package
- Implemented and compared among different classification models including traditional machine learning models (RandomForest, Logistic Regression...) and SOTA neural networks (LSTM, BERT...)
- Produced a comprehensive EDA and NLP report with 91% accuracy attained in classification task

Database Construction for Online Shopping Website   *Feb 2022 – May 2022*
- Designed ER diagram and generated normalised database schema for an online shopping website
- Implemented database schema using MySQL

StudyBuddy App   *Feb 2022 – May 2022*
- Utilized Android Studio, Firebase (including Firebase Authentication and Firebase Firestore), and Google Map API to develop a comprehensive Android application with 13 functions to enhance students' study experience.
- Designed and implemented functionalities that enable students to easily connect with study partners, discover study locations, rate and review locations, and save their favorite locations.

ADDITIONAL

- Relevant coursework: Data Structures and Algorithms, Software Engineering, Database, Artificial Intelligence, Natural Language Processing, Data Analytics and Mining, Neural network and Deep learning, Statistics
- Programming Languages: Python, C, C++, Java, Javascript, Typescript