

Jovan Njotohardjo

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EDUCATION

University Of Wollongong, SIM GE

Bachelor of Computer Science (Big Data)

Grade: Distinction

Expected October 2024

Singapore

Activities :

SIM's Data Analytics Club Analyst

October. 2023 - April. 2024

PROJECTS EXPERIENCE

Maize Tassel AI Web Application

April. 2024 - Oct. 2024

- **Participated** in a groundbreaking project to develop a web application leveraging a deep neural network PyTorch model of YOLOv9e. This application addresses the labor-intensive and time-consuming process of manual maize tassel counting in fields by automatically and accurately detecting and counting maize tassels from uploaded images.
- **Conducted** the strategic implementation efforts, achieving 90% mAP50 and 5.8 MAE when trained on the combined dataset of MTDC, MTDC-UAV, and Puskul, thereby outperforming current available systems in the market. Utilized RabbitMQ for image queuing and as a message broker, enabling distributed computing and asynchronous processing of image tasks to ensure high scalability and fault tolerance.
- **Developed** a load balancer and priority queue system for image processing jobs using RabbitMQ, efficiently distributing tasks to worker nodes and optimizing resource utilization. Designed and implemented a Folder Management system using PostgreSQL, and utilized Redis for session management to provide a secure authentication system.
- **Employed** Docker for containerization, making the image processing worker scalable and facilitating easy deployment and management. Played a pivotal role in the frontend development phase, crafting a user-friendly interface using ReactJS. Utilized FastAPI as the main backend framework, ensuring robust functionality and smooth data management.
- **Assumed** responsibility for meticulously documenting the project's progression, ensuring comprehensive tracking and reporting of developmental landmarks.
- **Stack** : Agile Development Method, Scrum, PyTorch, YOLOv9e, RabbitMQ, PostgreSQL, Redis, Docker, ReactJS, TailwindCSS, FastAPI

Property Listing Website

April. 2024 - May. 2024

- **Led** the strategic design efforts, conceptualizing and refining wireframes in Figma to establish a blueprint for seamless user interactions and intuitive navigation.
- **Played** a pivotal role in the frontend development phase, architecting essential components and crafting visually captivating pages.
- **Contributed** to the backend development, architecting essential controllers to ensure robust functionality and smooth data management.
- **Assumed** responsibility for meticulously documenting the project's progression, ensuring comprehensive tracking and reporting of developmental landmarks.
- **Utilized** Agile Development methods to ensure the flow of the entire project.
- **Stack** : Agile Development Method, Scrum, ReactJS, TailwindCSS, Flask, Github, Axios, Figma, Taiga, SQLite,

Financial Loan Market Analysis External project for External Party at UOB

Jan. 2024 – Mar. 2024

- **Spearheaded** a team of 6 in a comprehensive web scraping initiative of business articles in different sectors
- **Orchestrated** a collaborative effort to deploy sentiment analysis, successfully integrating a total of 5 cutting-edge models from HuggingFace into our project workflow.
- **Poised** to contribute significantly to our topic modeling efforts. By employing advanced Natural Language Processing techniques, I aim to uncover underlying themes and topics from the amassed data, providing deeper insights into the financial loan market dynamics.
- **Tasked** with developing an interactive dashboard using Streamlit. This dashboard serve as a pivotal tool for visualizing our findings, including sentiment analysis outcomes and topic modeling insights, facilitating an intuitive and comprehensive presentation of our analysis to stakeholders.
- **Stack** : Selenium, Python, Natural Language Processing, Streamlit, Pandas, Matplotlib

Certifications & Awards

AWS Cloud Practitioner (CLF-C02) :

Achieved the AWS Certified Cloud Practitioner certification, demonstrating foundational knowledge of AWS Cloud concepts, services, and basic architectural principles. This certification validates my ability to effectively navigate and utilize AWS services to optimize cloud solutions.

SIM Impetus Award :

Recipient of the prestigious SIM Impetus Award, recognizing outstanding performance and dedication in academic and extracurricular activities. This award reflects my commitment to excellence and my proactive approach to contributing to my community and field.

SKILLS

Languages : English (Fluent), Mandarin (Basic), Indonesia (Native)

Programming Languages: Java, Python, C++, JavaScript, R, HTML/CSS, SQL

Tools & Technologies: Keras, TensorFlow, Scikit-Learn, Linux, Docker, Apache Spark, Figma, Flask, ReactJS, TailwindCSS,

Flowbyte, Ppython-telegram-bot, Github, Pandas, Matplotlib, Selenium, Streamlit, Axios, Scrum, Agile, Pytorch, Amazon Web Services (AWS), FastAPI