Martin Dang

+61 489306228 - Portfolio - martindang2801@gmail.com - Linkedin/martindang - Github/husthunterpy01

SUMMARY

Leveraging experience in AI model design and software engineering to pursue a career as a Machine Learning Engineer, specializing in infrastructure development and model optimization to create cutting-edge solutions for businesses and enterprises.

EDUCATION

The University of Western Australia, Australia **2/2025 - Expected 12/2026**
Master of Information Technology, Artificial Intelligence Specialization *GPA: 6.25/7.0*

Hanoi University of Science and Technology, Vietnam **8/2019 - 9/2023**
Bachelor of Electronics and Telecommunications Engineering *GPA: 3.74/4.0*

WORK EXPERIENCE

FPT Software **1/2024 - 1/2025**
Software Developer *Hanoi, Vietnam*

- Developed high-performance **RESTful** APIs with **ASP.NET** for a US-based pension payroll platform, applying **Clean Architecture** and **CQRS** patterns to efficiently manage **500** simultaneous users.
- Boosted the total unit test coverage of the payroll application from **42%** to over **80%** using XUnit.
- Developed and designed a Korean **WPF** application to remotely control software deployment on about **200** machines simultaneously using **RDP** protocol and **Powershell** automation .
- Visualized device-specific metrics from **OpenSearch** logs with multi-line graphs using **WPF Lepoco UI**.

Future Internet Lab **10/2021 - 11/2023**
Undergraduate Student Researcher - Part Time *Hanoi, Vietnam*

- Worked on data processing of the ICS architecture relating to water factory anomaly detection with the dataset of SCADA and WADI using **Graph Neural Network** model.
- Diagnosed and resolved a Vietnamese company's issues with anomaly prediction based on **K-means clustering** and **PCA** technique in the IMS system.
- Conducted research on identifying beehive audio using a **CNN-GRU** hybrid model, incorporating feature engineering and hyperparameter tuning, resulting in a **1%** increase in accuracy for bee sound classification.

PERSONAL PROJECT

- **A Summarization System on RAG Chatbot**: Developed a RAG chatbot with dialog summarization functionality, using **FastAPI** to create a scalable backend, **Llama-3.2** for embedding generation and **fine-tuned BART** for summarization, **MongoDB** for efficient storage and retrieval of embeddings and chat logs, and **Streamlit** to provide an intuitive interface for chat visualization and interaction. Link
- **Sparkify Airflow pipeline**: Developed an **Airflow** DAG pipeline to automate the process of migrating the music streaming database to cloud-based data warehouse **AWS Redshift** Link
- **STEDI Health Analytics**: Implemented a data lakehouse solution on STEDI health sensor data for trainning machine learning models using **AWS S3**, **AWS Glue Spark** and **AWS Athena** Link
- **Movie Management System**: Worked on a movie recommendation system with CRUD functions, and manage the users and managers by name activities logging and suggestion for users based on their favorite genres and most seen types using **Java Swing** and **MySQL** Link

TECHNICAL SKILLS

Programming Languages: C#, Python, Java, Javascript
Databases: SQL Server, MySQL, MongoDb, OpenSearch
Web Development: ASP.NET (DOTNET 6, DOTNET 8), FastAPI, FlaskAPI, ReactJS
AI Development: Pytorch, Scikit-learn, Tensorflow
Cloud Technologies: Azure(Azure Devops, Azure SQL, Azure Function), AWS(EC2, Redshift, S3, Glue, Athena)
Orchestration: Docker, Spark, Kafka

PUBLICATIONS

- Truong, T. H., Du Nguyen, H., Mai, T. Q. A., Nguyen, H. L., & **Dang, T. N. M.** (2023). A deep learning-based approach for bee sound identification. Ecological Informatics, 78,102274. Link