SON NGO

+61 450420890 | theson2004@outlook.com | https://www.linkedin.com/in/son-ngo-2272b3215/ |
https://github.com/Ngoson2004 | https://ngoson2004.github.io/#home

I help organisations build AI models and data pipelines for smooth customer services and valuable business insights. My expertise is data engineering, LLM, computer vision, graph neural networks, and data-efficient training methods for ML/DL. With my skill sets, I can integrate AI into your daily tasks and provide you with strong business intelligence.

RELEVANT EXPERIENCE

CSIRO Manufacturing – Machine Learning Specialist Feb 2025 – Feb 2026

- Ranked **Top 13 out of 370+ global participants** in an AI-for-drug-discovery challenge, achieving a **macro-averaged relative absolute error of 0.588**.
- Conducted research in AI for drug discovery and assessed its real-life applicability. Apply AI to predictive analysis of molecules' pharmacokinetic properties, which accelerates drug screening and reduces its cost.
- Curated large-scale datasets, ran multitask learning experiments, optimised hyperparameters, and engineered molecular embeddings using **Graph Neural Networks**.
- Leveraged **HPC + SLURM** to streamline large-scale experimentation and boost productivity.
- Collaborated across AI, chemistry and bioengineering teams, producing **clear technical reports** and **translating complex concepts** for **diverse stakeholders**.

FPT Software – Multi-modal AI Engineer Internship July 2024 – Jan 2025

- Explored the application of **multimodal models** in manufacturing, leveraging their ability to simultaneously process computer vision and human language to enhance operational efficiency.
- Fine-tuned the BLIP multimodal model for meter reading in a factory setting, utilising a dataset containing labelled images and question-answer pairs to **improve accuracy and automation**.

Kois AI – NLP Engineer Intern (small start-up) June 2024 – Sept 2024

- Developed and launched a **recruitment platform** called Starplan for recruiters and job seekers with **agile development**, providing functionalities such as job description (JD) generation, resume summarisation, and candidate recommendations, streamlining recruitment processes.
- **Led the development** of JD generation functionality, a key differentiator for the platform, enhancing its uniqueness in the job-seeking market by automating the creation of job descriptions.
- Engineered and optimised prompts using **GPT-4o-mini API** for generating job descriptions for technical roles, achieving a **high similarity score** of 0.8-0.9 compared to sample JDs, **improving relevance and quality**.

Aetosky – Computer Vision AI Engineer Internship Nov 2023 – March 2024

- Labelled and processed satellite images using **QGIS**, applying vector polygons to create ground-truth labels, and configured the **Mask-RCNN model** to generate object masks with enhanced segmentation accuracy.
- **Improved the accuracy** of the models (for buildings, roads, trees, and recreational pools) by **15%** through optimising the **ROI ratio to 0.5** and **RPN confidence score threshold to 0.9**, aiding infrastructure planning efforts.
- Collaborated with supervisors and the project manager to **report and analyse** deep learning model performance, leading to **informed decision-making** in **model evaluation** and smooth **MLOps**.

SIDE PROJECTS

Fine-tuned Distilled Bert (link)

- Built and fine-tuned a Distilled-BERT model using PyTorch to specialize in COVID-19-related queries, leveraging the open-source CovidQA dataset from Huggingface.
- Improved model accuracy by 17% and confidence level by 12% over the original version through targeted fine-tuning strategies, resulting in significantly enhanced reliability for domain-specific applications.

Logistic Regression Neural Networks (link)

- Working in a team to design a Deep Learning course for Vietnamese students by writing explanation notebooks. Notebook collection consists of lectures on Logistic Regression Algorithms and Neural Networks, with code outputs and explanations of concepts. The Neural Networks were built without pre-built frameworks, only with Numpy.
- Binary classification was performed on the *Titanic Survivors* and the *Vietnamese Bank Term Deposit* datasets, resulting in an 85% accuracy in prediction on validation sets.

Vector search query RAG engine (link)

- A vector search index is built from the non-relational MongoDB database, with the KNN algorithm and text embeddings to find relevant context based on given keywords. The database is imported from an open-source dataset on the Hugging Face platform.
- Query engine answers users' questions precisely using retrieval-augmented generation. This is done by utilising the GPT-4o model API and the context extracted from the vector search pipeline.

EDUCATION

Swinburne University of Technology - Bachelor of Computer Science - Artificial Intelligence (Professional) Aug 2022 - May 2026

- **Highlighted skills acquired:** Software Development Life Cycle, Data Science and Analytics, Cloud Computing, Deep Learning Models, Machine Learning Engineer
- **Highlighted achievements:** top 15% in cohort, 50% tuition fee scholarship
- **GPA:** 3.55

COMMUNITY/VOLUNTEER WORK

Striped Project – Volunteer 2020 - 2021

- An environmental sustainability club organised by high-school students.
- Making flowerpots from recycling plastic bottles, educating autistic children about the environment protection, sending clothes and food to poor Vietnamese ethnic minority in remote areas, etc.

Hanoi Model United Nations – Delegate of Japan 2021 - 2022

- A simulation of UN conference for high-school students.
- Casting as a delegate of Japan. Debating and writing decree for issues regarding space exploration between nations.

AWARDS & CERTIFICATIONS

- **Golden Key International Honour Society Member**: Recognised as the top 15% of high-performing students in all academic discipline.
- **Deep Learning Specialisation**: For completion of 5 courses on the mechanism of deep learning.
- **Machine Learning Specialisation:** For completion of 3 courses about the fundamentals of Machine Learning.
- **Python for Data Visualisation**: Completion of a course on LinkedIn Learning, teaching about using pandas and Matplotlib for visualising data.
- **Python Essentials 2:** For completion of Python Essentials 2 course provided by Cisco.

SKILLS

- **Programming Languages**: Python, Linux, C++, SQL, TypeScript, LaTeX
- **Domain-specific skills**: Machine Learning Algorithms, Deep Learning Models, Data Engineering, Predictive Modelling, Data Visualisation, RAG, NLP, Computer Vision, MLOps, Full-stack Development
- **Frameworks and Libraries**: Pytorch, TensorFlow, Scikit-learn, Jupyter Notebook, Numpy, Pandas, Matplotlib, SLURM, HPC, Conda, Git, AWS, Docker, React, Tailwind CSS
- **Transferable skills**: Attention to Detail, Self-learning, Technical Report, Problem Solving, Cross-domain Collaboration, Cross-functional Communication, Adaptability
- **Hobbies:** Gym, Basketball, Soccer, Reading books, Boxing

REFERENCE: AVAILABLE UPON REQUEST