

Ximing Tao

Phone: 0412 636 502

Email: directortao@gmail.com

Skill Highlights

Core Skills:

Programming: Python (proficient), Java, TypeScript/JavaScript
ML/AI: LangChain, RAG, LLMs, Prompt Engineering, Model Deployment
Python Stack: TensorFlow/PyTorch, PaddlePaddle, NumPy, Pandas, Scikit-learn
MLOps: Docker, AWS (EC2, S3, Lambda), Model Serving
Database: PostgreSQL, MySQL, ChromaDB (Vector Database)

Additional Skills:

Frontend: React, Next.js, Vue.js
Backend: Django, RESTful API
Tools & Methodologies: Git, CI/CD, Agile, Test-Driven Development

Work Experience

Machine Learning Engineer

July 2024 - Nov 2024

Virtual Mike

Australia

Project 1: Real Estate Law Chatbot and LLM Evaluation Tool

- Integrated **LangChain** with **GPT-4o-mini** and **GLM-4**, implementing custom **RAG pipeline** and prompt management for legal consultations.
- Designed scalable AI evaluation system using **LangChain** and **LangSmith** for distributed LLM inference and performance benchmarking.
- Implemented data workflows combining **ChromaDB** (vector storage) and **PostgreSQL** (structured data) in RAG operations.
- Built backend services with **Django REST** Framework for real-time chat processing and model performance monitoring.
- Developed full-stack application with **Next.js**, **React** and **Vue.js** for efficient AI service integration.

Machine Learning Engineer

Apr 2022 - Feb 2024

Auxilis

Australia

Project 1: Table Recognition and Document Processing

- Designed and deployed scalable AI solutions on **AWS (EC2, S3)**, using **Docker** for containerized model deployment and distributed inference pipelines.
- Fine-tuned **Faster R-CNN** model using **TensorFlow** for table recognition, achieving 98% accuracy in document processing applications.
- Implemented distributed inference system to handle large-scale document processing, optimizing system latency and fault tolerance.

Project 2: Handwritten Bengali Digit Recognition

- Developed automated recognition system using deep learning models and **OpenCV** for financial document processing.
- Optimized model inference pipeline for real-time processing, implementing efficient pre-processing and batch prediction strategies.
- Deployed solution with Docker to ensure consistency across environments, utilizing AWS services for model training and dataset management.

Project 3: Layout Recognition System

- Led the development of layout recognition system using **PaddlePaddle** for model fine-tuning and optimization.

- Designed modular system architecture facilitates efficient model retraining and straightforward deployment on physical servers.
- Managed data labeling team and mentored interns, establishing comprehensive documentation for labeling standards and workflows.

Machine Learning Engineer

Wuhan Purvar Bigdata Technology Co., Ltd.

Jun 2020- Sep 2021

China

Project 1: Essay Auto Scoring System

- Fine-tuned Transformer model for English composition scoring, implementing CLS token for article embedding to improve contextual understanding.
- Developed scoring optimization system using regression models and ranking loss functions to enhance scoring precision.

Education

Master of Information Technology

RMIT University

2023 – 2024

Australia

Project 1: Genetic Interaction Mining Tool

- Implemented **NLP** models for scientific **text mining**, extracting gene-gene interactions from **PubMed** abstracts.
- Developed text processing pipeline for scientific literature analysis and genetic interaction identification.
- Built data management system using **Python** and **pandas** for genetic interaction data storage and analysis.

Project 2: Urban Green Space Analysis System

- Developed data analysis pipeline using **GeoPandas** for geospatial data processing and feature engineering.
- Implemented recommendation algorithm using multi-dimensional scoring and proximity-based clustering.
- Built interactive visualization system with **Folium** for spatial data analysis.

Bachelor of Computer Science

Mingchuan University

2015- 2020

Taiwan

Project 1: Addition of Environment Monitoring Function to Library APP

- Built a simple server using Tomcat to store sensor data using SQL, and added a function to display temperature and humidity in library APP.

Project 2: Development of Sneakers Shopping APP

- Developed and deployed Android mobile application using Android Studio and Firebase, and implemented user authentication, push notifications, and real-time data synchronization

Other Skills and Licenses

- Taiwan Tech-efficiency Quotient Certification (TQC) Microsoft office
- Australia Drive license
- Fast learner with ability to adapt to change
- Strong teamwork skills
- Strong time management skills with ability to prioritizing tasks
- Internal and external stakeholder management skills