THONG YONG QUAN, DANNY

Github | dannyyqthong@gmail.com | **LinkedIn** | **Portfolio**

TECHNICAL SKILLS

Programming Languages & Frameworks: Python, SQL, FastAPI, Flask, Scikit-learn, TensorFlow, PyTorch, Streamlit, LangChain
LLM APIs and Platforms: OpenAI, OLLAMA, GROQ
Tools and Platforms: Power BI, Docker, Git, Vector Databases (FAISS, Chroma, Astra DB)
MLOps and Cloud: AWS (EC2, ECR), Azure (Container Registry, Web App), GitHub Actions, MLflow, DagsHub
Machine Learning Models: Regression (Linear, Logistic), Tree-based Models (Decision Trees, Random Forest, XGBoost, CatBoost), PCA, K-nearest neighbors, DNN, NLP, LSTM, Transformers, Hugging Face Embeddings
Other Skills: **Financial Modeling (Netflix forecast)**, Financial Analysis, Compliance, Fraud Detection

PROJECTS

GROQ Search Engine Chatbot PDF   **Chatbot Live Demo**

- Designed a chatbot and deployed on **streamlit cloud** using **LangChain** and **GROQ** to process PDFs with **PyPDFLoader** and **FAISS** vector stores, enhanced by **HuggingFace embeddings** for efficient querying.
- Added **Arxiv**, **Wikipedia**, and **DuckDuckGo** search capabilities, with session management and streaming responses via **StreamlitCallbackHandler**.

Network Security Phishing Project End to End Deployment

- Developed a machine learning-based system to classify network traffic as normal or phishing, achieving an F1 score of approximately 98% for the best model.
- Integrated **MLflow** experiments to log F1-score (0.97), precision (0.96), recall (0.98) to **DagsHub** sever.
- Deployed the model on **AWS** (EC2, ECR) and **Azure** (Azure Registry, Web App), ensuring scalability and reliability.
- Utilized **Docker** for containerization, enabling efficient and portable deployment.

NLP Kindle Review Sentiment Classification   **Kindle Review Live Demo**

- Developed an NLP system to classify Kindle review sentiment using **Scikit-learn**, **NLTK**, and **Gensim**.
- Engineered a preprocessing pipeline with tokenization, stopword removal, and vectorization (**BoW**, **TF-IDF**, **Word2Vec**, **AvgWord2Vec**).
- Achieved 64.2% accuracy with Random Forest on **AvgWord2Vec**, outperforming Naive Bayes on **BoW** and **TF-IDF**
- Utilized **Docker** to debug environment issues, enabling successful deployment on **Streamlit Cloud**

PROFESSIONAL EXPERIENCE

AI Singapore – AI Apprentice   **Jan 2024 – Oct 2024**

- Collaborated with 4 engineers to develop an **end-to-end machine learning pipeline** for clinician support.
- Fine-tuned a **state-of-the-art language transformer model** to extract key features from medical reports.
- **Containerized** the complete ML pipeline with **Docker**, enabling seamless deployment across data ingestion, training, and inference.
- Developed and integrated a **FastAPI-based framework** within the inference pipeline to optimize predictions and enhance explainability, providing actionable insights.
- Engineered a **multistage data-processing pipeline** to standardize **time-series** and **tabular** data.
- Contributed to **Explainable Boosting Model (EBM)** development to ensure clinical transparency.
- Mentored junior apprentices in **Neural Networks** and **NLP**, fostering collaboration and skill development.

CriAT – Product Analyst   **Jan 2022 – Sep 2022**

- Built **Power BI dashboards** to visualize **product performance** and market trends.
- Automated QA processes using **Python**, improving efficiency by **20%**.

Various Top Tier Banks & Deloitte – Private Banking Support Manager   **2016 – 2021**

- Held multiple roles in **compliance** and **client due diligence (CDD)**, with a strong focus on **Know Your Customer (KYC)**, **transaction monitoring**, and **fraud prevention**.
- Delivered significant **process improvements, achieving a 20% reduction** in turnaround time across multiple positions.

Freelance – TMT Equity Research Assistant   **Jun 2018 – Aug 2019**

- Built financial models and evaluated SEC reports to forecast earnings and profitability for listed and pre-IPO companies.

EDUCATION AND CERTIFICATIONS

AI Singapore: AIAP Certification
Boston Consulting Group: Business and Data Analytics Certification
Corporate Finance Institute® (CFI): Financial Modeling & Valuation Analyst
University of London: Bachelor's Degree in Banking and Finance