

THONG YONG QUAN, DANNY

[Github](#) | dannyqthong@gmail.com | [LinkedIn](#) | [Portfolio](#)

TECHNICAL SKILLS

Programming Languages & Frameworks: Python, SQL, FastAPI, Flask, Scikit-learn, TensorFlow, PyTorch, Streamlit

Tools and Platforms: Power BI, Docker, Git

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, ANN, NLP, Transformers, LSTM

Other Skills: [Financial Modeling \(Netflix forecast\)](#), Financial Analysis, Compliance, Fraud Detection

PROJECTS

[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**

[Predict Bank Customer Churn](#)

[Customer Churn live demo](#)

- Developed an **Artificial Neural Network (ANN)** to predict customer churn in banks using **TensorFlow/Keras**.
- Designed and trained a deep learning model with **early stopping**, **batch normalization**, and **dropout layers**, achieving 86.05% test accuracy and enabled timely churn intervention for banks.

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 – 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 times 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