Ted Zhao

10/4 Sheppards Lane, Norwood SA 5067, Australia | ted.zhao.au@gmail.com | 0416 551 622

linkedin.com/in/ted-zhao | github.com/tade0726

Summary

- 5+ years in Machine Learning and Data Science across finance, travel, and retail sectors.
- Delivered end-to-end ML solutions with deep business insights.
- Improved CTR by up to 10% at Skyscanner through advanced recommendation systems.
- Expert in customer segmentation, demographic profiling, and A/B testing.

Skills

ML/AI: Reinforcement Learning, Deep Learning, Clustering, LightGBM, XGBoost, SVM, Word2Vec, A/B Testing

MLOps/Cloud: Azure ML, AWS, SageMaker, MLflow

Data Engineering: DBT, Databricks, Snowflake, Dagster

Programming: Python, VBA, Scala, Julia

Web Development: Django, Flask, Asyncio, Scrapy

ETL/Data Tools: SQL, SQLAlchemy, Spark, Pandas, Tableau

Version Control & Containers: Git, Docker

Experience

Data/AI Engineer, Rainmakr.ai – Adelaide, SA (Remote)　　　　　　　　　　May 2023 – July 2024
- Developed LLM prompts to categorize company data, enhancing industry insights.
- Created knowledge graphs with LLMs, improving financial decision-making accuracy.
- Simplified data models with DBT, reducing schema size by 50% and redundant data by 15%.
- Optimized queries, cutting runtime by 50% through data flow enhancements.
- Integrated DBT with Dagster Cloud, unifying data streams and improving presentation.

ML Engineer/Data Scientist, Skyscanner – Shenzhen, China　　　　　　　　Nov 2019 – July 2021
- Increased CTR by 5-10% using Logistic Regression, LightGBM, and Deep Learning models.
- Achieved 99% Top-5 accuracy in image categorization with ResNet, enhancing user engagement.
- Improved CTR by 3% by refining thumbnail selection using MobileNet.
- Boosted CTR by 2% through real-time data streaming and batch processing optimization.

Data Scientist, DJI – Shenzhen, China　　　　　　　　　　　　　　　　　Apr 2018 – Aug 2018
- Conducted competitive analysis using a custom Python web crawler for product launch.
- Developed ranking algorithms to prioritize city distribution, aiding marketing strategy.
- Performed customer segmentation analysis to support strategic planning.
- Built Django APIs for SQL querying and data model management.

Data Scientist, Smart Decision Technology Ltd – Shenzhen, China　　　　　Aug 2015 – Mar 2018
- Designed Python-based credit scorecard workflows, replacing SAS solutions.
- Built a simulation system for S.F. Express, securing a 2-year contract.
- Applied K-Means clustering for member segmentation at HKJC.
- Developed NLP-based sentiment analysis for Chinese app reviews.

Projects

ATO Chatbot   2023
- **Demo**: https://ato-chat.streamlit.app/ **Github**: https://github.com/tade0726/ato_chatbot
- Engineered an AI-driven chatbot for the Australian Taxation Office (ATO) to facilitate information retrieval, utilizing Retrieval-Augmented Generation (RAG) with LlamaIndex and Qdrant.
- Deployed the solution via Streamlit, ensuring a seamless and user-friendly interface.
- Enhanced data ingestion and model fine-tuning processes with ZenML, employing OpenAI's language model for precise, context-aware responses and intelligent query rephrasing.

Quantitative Trading with Reinforcement Learning – University of Adelaide   Sept 2022
- Developed a crypto trading strategy using Reinforcement Learning.
- Designed a Sharpe Ratio-based reward system for asset trading actions.
- Created Deep Learning modules to capture price signals and market sentiment.
- Conducted back-testing with metrics like Sharpe Ratio and Maximum Drawdown.

Education

University of Adelaide, Master in Machine Learning – Adelaide, SA   June 2021 – May 2023

Shenzhen University, Bachelor in Mathematical Sciences – Shenzhen, China   Sept 2010 – July 2014

Certifications

Coursera, Machine Learning -   Oct 2016
https://www.coursera.org/account/accomplishments/verify/Q89DMB9RYYTB

Udacity, Machine Learning Nanodegree -   Dec 2018
https://graduation.udacity.com/confirm/PKAQPLU2

Languages

English: IELTS 7.0 **Mandarin**: Native **Cantonese**: Native