Dai Dong

Melbourne, VIC | vandaidong@gmail.com | 0403-770-879
GitHub: github.com/VDai1999/ | Website: Portfolio_Website/ | LinkedIn: linkedin.com/in/daidong

Education

University of Wollongong — Wollongong, NSW
Master of Computer Science; WAM: 85.94/100 — *July 2022 - July 2024*

- Majored in Machine Learning and Big Data, and Software Engineering
- Received a "Distinction" award for high academic performance

Miami University — Oxford, OH, United States
Bachelor of Science; WAM: 94.5/100 (GPA: 3.78/4) — *August 2017 – May 2021*

- Majored in Data Science and Statistics
- Minored in Actuarial Science and Information Systems
- Received "Cuma Laude" (honours) recognition for high academic performance
- Received the 2021 Miami Senior Service Leadership Award

Relevant Experience

Academic Tutor — August 2023 – Present
University of Wollongong — *Wollongong, NSW*

- Lead weekly tutorial sessions for the courses Programming with Python (CSIT110), Data Management and Security (CSIT115), Introduction to Web Technology (CSIT128), Java Programming and Applications (CSIT213), and Foundations of Artificial Intelligence (CSCI218), assisting students in comprehending class materials and completing assignments
- Assess and offer constructive feedback on students' assignments

Research Intern — November 2023 – February 2024
CSIRO — *Newcastle, NSW*

- Conducted research on Generative AI algorithms to produce synthetic data within the Energy sector, effectively tackling issues related to data accessibility and privacy concerns
- Implemented synthetic time series energy data pipeline with integrated privacy protection filters
- Performed household energy consumption data analysis for the paper *Can Private LLM Agents Synthesize Household Energy Consumption Data?*, which utilises private Large Language Models (LLMs) for data synthesis

Software Engineer Intern — March 2023 – September 2023
Aubot — *Remote, Australia*

- Collaborated with other developers to design, develop, debug, and maintain robust and scalable Aubot LMS web applications using the Django framework
- Implemented new features on the Aubot LMS website to enhance the user experience and improve overall usability

Graduate Data Scientist — October 2021 – May 2022
One Mount Group — *Hanoi, Vietnam*

- Designed and deployed a lookalike engine to expand the user pool based on past customers' activities on mobile apps and loyalty programs, increasing the average click-through rate by 25%
- Designed and integrated a feature selection component into the current model pipelines to reduce the number of features before training and serving models, achieving a 45% decrease in downloading training and serving data
- Performed feature engineering to create more than 300 features and implemented two CatBoost models to predict customers' gender and age group of more than 8,000,000 users using those features, yielding an AUC of approximately 0.82
- Migrated ML model pipelines to a new system in which Docker images were automatically built and training/serving jobs were automatically triggered/scheduled in Kubeflow
- Experimented with and integrated a Feature Store into the current model pipelines to create centralised data storage accessible across different teams

Projects

Lane Detection Cross-Platform Mobile Application | *Python, Tensorflow, Pytorch, Flutter, Flask, AWS, Docker*

- Trained and evaluated deep learning models for a mobile application focused on lane detection
- Collaborated with teammates to develop a mobile application that allows users to capture photos or record videos of lanes and receive outputs with lane markings detected using various deep learning models
- Link: https://vdai1999.github.io/Portfolio_Website/projects/lane_detection.html

Pedestrian Detection and Tracking | *Python, OpenCV*

- Developed real-time detection and tracking of pedestrians
- Implemented efficient data processing to ensure quick analysis of video feeds
- Identified and tracked multiple pedestrians simultaneously, focusing on the three closest pedestrians to the camera
- Link: https://github.com/VDai1999/ObjDetectionAndTracking

Spotify Recommendation System | *Python*

- Scraped data for more than 1,200 songs from Spotify using Spotify API
- Performed sentiment analysis and text analysis, and built a recommendation system to suggest songs that users may like based on their listening records
- Link: https://github.com/VDai1999/Spotify_Recommendation

Covid-19 Dashboard | *Python, Streamlit, R, RShiny*

- Developed two interactive dashboards in Streamlit and R-Shiny that allow users to view COVID-19 statistics in the U.S and the regional trends for Coronaviruses
- Link:
  - App: Streamlit App, RShiny App
  - Code: https://github.com/VDai1999/Covid19_Dashboard

Customer Churn Prediction | *Python*

- Constructed tree-based models such as Random Forest, Light GBM, and XGBoost along with Synthetic Minority Oversampling technique to forecast if customers will cancel or continue their services with the company, yielding a 0.91 AUC
- Link: https://github.com/VDai1999/Customer_Churn

Technical Skills

Programming Languages: C++, C, Java, Python, SQL, R, JavaScript, TypeScript
Others: .Net, Git, GitHub, Node.js, React, HTML, CSS, Django, Docker, Excel, Tableau,