

QIN XU

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EDUCATION

Master of Information Studies, ML, and Data Science

August 2023 - June 2025

McGill University, Montreal, QC

Bachelor of Science in Statistics, Cognitive Science, and Computer Science

August 2020 - June 2023

University of Toronto, Toronto, ON

TECHNICAL SKILLS

- Programming: Python, Machine Learning, Html, CSS, R
- Data Visualization: Tableau, Power BI
- Database: SQL, MySQL
- Version Control: Git, GitHub
- Other Software: Figma, Procreate, Microsoft Office Suite

DATA SCIENCE EXPERIENCE

Machine Learning and Data Scientist - Intern | Python, DA, ML

May 2024 - August 2024

ICBC Software Development Centre, Beijing, China

- Enhanced Credit Card Fraud Detection: Optimized LightGBM model through advanced data preprocessing and feature engineering, improving recall by 15% and F1 score by 10%, achieving 98% accuracy with 0.95 AUC across 50k undersampled data.
- Designed and implemented the MMoE model for ad recommendation, improving system performance and reducing resource consumption by 20%.
- Developed and optimized the VQ-VAE model for user feature recognition, gaining approval for production deployment after testing on 60k user profiles.
- Communicated weekly with the project lead to complete key machine-learning parts of the project.
- Presented 3 final products to executives, contributing to 2 new company-wide ML initiatives.

RELEVANT PROJECTS

Pet & Park Database Design Project | SQL, Database, HTML

September 2024 - December 2024

- Designed and implemented a comprehensive database integrating Vancouver's pet and park data.
- Analyzed requirements from multiple stakeholders including pet owners, animal control officers, and city planners.
- Analyzed and structured unstructured data from the Vancouver Open Data Portal into a relational format.
- Built Entity Relationship Diagram (ERD) with 15+ tables, including 5 associative tables.
- Documented standards and definitions using a detailed data dictionary for future database management.
- Implemented database with SQL queries on MySQL according to ERD, achieving a database with a clear structure that meets users' needs.
- Built user interface supporting complex queries across multiple tables using HTML and JavaScript.

College Student Calendar Software Design | R, UXD, Tableau

January 2022 - May 2022

- Led a 5-person team in designing and developing a calendar application for college students.
- Analyzed user opinions of 100 participants using R to inform design decisions.
- Created 2-stage high-fidelity prototypes using Figma.

- Conducted 2 rounds of user testing with 20 students each, resulting in a 20% improvement in user interface satisfaction scores.
- Visualized data using Tableau to present project results to colleagues.

Image Classification Project | Python, ML

March 2023 - April 2023

- Optimized ResNet model using Vision Transformer technology, processing 100,000 images and achieving 95% classification accuracy, a 15% improvement over baseline models.
- Analyzed pre-trained ResNet 50, ResNet 34, and custom-built ResNet 44 models, identifying optimal configuration.
- Processed image data and built models using Python (PyTorch, NumPy, pandas), enhancing model training flexibility for future projects.