

Haoran Yu

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SUMMARY

- Adaptable, collaborative, and detail-oriented professional with a strong foundation in data analysis and problem-solving
- Proficient in Python libraries such as NumPy, pandas, Matplotlib, PyTorch, and SciPy for data manipulation, visualization, and machine learning
- Experienced in utilizing R and core tidyverse packages for regression analysis and data wrangling, SAS for data management, and SQL for querying, manipulating, and analyzing data from relational databases

EDUCATION

BSc., Major in Mathematics, Minors in Statistics and Economics

09/2021 – 06/2025 (Exp')

University of Toronto

Toronto, ON

Relevant Courses: Probability and Statistics I&II, Financial Economics I&II, Methods of Data Analysis, Statistical Machine Learning I&II, Linear Algebra I&II, Advanced Calculus, Abstract Mathematics, Complex Variables, Mathematical Modelling, Nonlinear Optimization, Mathematical Theory of Finance

PROJECT EXPERIENCE

Machine Learning Perspective on Predicting Loan Default Risks in Financial Services

08/2024 - 12/2024 (Exp')

- Acquired machine learning model-building skills by creating a loan default prediction model using Lending Club data
- Enhanced research skills by reviewing loan default prediction and documenting findings on GitHub
- Strengthened data preprocessing abilities by cleaning, transforming, and scaling variables
- Developed exploratory data analysis skills by identifying key predictors and their relationship with the response variable
- Gained experience in model training and evaluation by implementing and assessing the model
- Improved documentation skills by detailing the entire process in a Jupyter Notebook, showcasing proficiency in data preprocessing, modeling, and evaluation

Anti-Fraud Data Analysis and Strategy Design

10/2024 – 11/2024

- Developed proficiency in SQL for data exploration, cleaning, manipulation, and feature engineering to support fraud detection models
- Strengthened analytical skills by evaluating model and strategy performance using key performance indicators and monitoring techniques
- Improved problem-solving abilities by working with complex, real-world financial data to uncover patterns and insights related to fraudulent activities

Regression Analysis on Insurance Premium

07/2024 - 08/2024

- Cultivated collaboration skills by working in a group to predict insurance premiums using real-life data
- Strengthened data preparation abilities by applying data selection, cleaning, and transformation techniques
- Gained expertise in model construction and refinement by building a linear regression model using Box-Cox transformations, square root, log, and Ridge regression
- Developed proficiency in model evaluation by assessing performance using F-statistics, partial F-statistics, Cook's distance, and R-squared
- Enhanced communication skills through summarizing findings and conclusions in a comprehensive project report

WORK EXPERIENCE

Real Estate Investment Expansion Intern Analyst

06/2023 – 09/2023

Shaanxi Jintai Hengye Real Estate Co., Ltd.

Xi'an, China

- Participated in the evaluation of land acquisitions for projects, including public auctions and equity acquisitions, analyzing land value and potential returns
- Conducted real estate market research, collecting and analyzing data on competitors, market trends, and consumer demands to provide data-driven insights for project decision-making
- Developed and compiled project feasibility study reports, covering market analysis, SWOT analysis, preliminary planning, and financial forecasting, enhancing analytical and report writing skills