

Yifan Cheng

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EDUCATION

University of Toronto

September 2020 – Dec 2023 (Expected)

Honor's Bachelor of science, Specialist in Statistics

- **Cumulative GPA:** 3.59/4
- **Relevant Courses:** Probability theory, Statistical inference, Applied machine learning, Probabilistic machine learning, Regression analysis, High dimensional data analysis, Bayesian statistics, Time series analysis

ACADEMIC PROJECTS

DataFest Data Analysis Competition

April 2023

University of Toronto's Department of Statistical Sciences

- Collaborate in a team to work on a dataset from American Bar Association based on a data analysis of legal services and clients questions using R code and present findings to a panel of industry judges
- Using statistical methods to find the distribution of all cases and classify the reasons that why some cases are unsolved, then predict the future trend of unsolved cases.
- Perform data visualization skills and dataset cleaning to find the optimal solution for American Bar Association providing better services to underprivilege groups across the US.
- [https://github.com/YifanCheng0131/DataFest2023/blob/main/Data%20Fest%20Group%2011%20\(1\).pdf](https://github.com/YifanCheng0131/DataFest2023/blob/main/Data%20Fest%20Group%2011%20(1).pdf)

Linear Regression Analysis of Student Mid-term Scores and Study Habits

Aug 2022

Data Analysis Course Project, University of Toronto

- Collected and analyzed data on students' mid-term scores, as well as relevant variables, such as studying hours, time spent on miscellaneous activities, and attendance in office hours
- Applied Linear regression techniques to build predictive models that could accurately forecast students' mid-term score; fitted regression models with different variables and their interactions, testing for statistical significance, such as R-squared and AIC; selected the best model and compiled findings into a detailed 18-page report
- **Programming language used:** R (ggplot2, dplyr, MASS)
- <https://github.com/YifanCheng0131/1-Data-Analysis-Group-project>

CAS Case Competition: TUO Liabilities Estimate Report

Jan 2022

- Tested multiple data cleaning and analysis methods, using triangle method to estimate the future labor liabilities.
- Developed advanced statistical analysis and data cleaning skills using Excel and knowledge learned from CAS, including the use of pivot tables, data validation, conditional formatting, and Solver
- Collaborated with a team of 4 to prepare an online presentation to senior actuaries, which involved analyzing complex data, developing visualizations, and presenting findings in a clear and concise manner
- <https://github.com/YifanCheng0131/CAS-case-competition>

Independent Reading Project: Data Science and Machine Learning Methods in Finance

June 2023

Machine Learning Course Project, University of Toronto (supervised by professor Dehan Kong)

- Generally introduced the mathematical derivation and statistical properties of famous supervised learning and unsupervised learning techniques and algorithms (regression analysis, discriminant analysis, Bayesian Linear Regression, PCA, Probabilistic PCA).
- Applied Linear Regression, Logistic Regression, Discriminant Analysis and PCA to solve real-life problem: stock price prediction by Linear Regression and Regularized Regression, and detection of personal credit by Logistic Regression, Discriminant Analysis, and PCA.
- https://github.com/YifanCheng0131/Data_Science_in_Financial_Application

PROFESSIONAL EXAMS

- Society of Actuaries Exam P – Probability (Passed) September 2022
- Society of Actuaries Exam FM – Financial Mathematics (Passed) August 2023

ADDITIONAL INFORMATION

Technical Skills: R, Python, SQL, NumPy, MS Office Suite (Excel, Word, PowerPoint, Outlook)

Languages: English (Full professional proficiency), Mandarin (Native)

Interests: Soccer (<https://www.instagram.com/utcssafc/> participated the intramural soccer game), Cooking, Fitness