

Ying Liu (Sabrina)

University of Waterloo | 3B Computational Mathematics, Combination and Optimization minor
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SKILLS

Programming Language: R, LaTeX, SQL, MIPS, Python, C, C++, Java, Racket, Linux, HTML

Visualization & MS Tools: Tableau, Power BI, Excel, PowerPoint, Word

Data Skills: Data Cleaning, Data Preprocessing, Data Modeling, Data Visualization

Soft Skills: Teamwork, Attention to Details, Time Management, Organizational skill

EDUCATION

University of Waterloo

September 2020 - Present

Honours Mathematics Co-op (computational mathematics with CO minor.)

Waterloo, ON

Relevant Course: Calculus & Algebra; Intro to Computers & Computer system; Object-Oriented Software

Development; Intro to Combination; Intro to Optimization; Statistics & Probability; Accounting & Economics

- Average 85 GPA in CS and math courses
- Received President's School/Distinction Scholarship

WORK EXPERIENCE

Zhuozhuo Technology Co., LTD,

August 2021 - November 2021

Operation Intern

Chengdu, China

- Extracted students' data and convert it into CSV format, used SQL to join, union to get the useful information
- Solved advanced mathematics questions and provided feedback to students. Applying Search Engine Optimization to improve the search rank for Camera Math Website
- Assisted the operations team in analyzing data in order to discover areas where processes could be improved, leading to a 13% boost in overall operational efficiency
- Developing operational reports and presentations, effectively condensing crucial metrics and performance indicators for management assessment

Xmaker

November 2019 - January 2020

Teaching Assistant

Chengdu, China

- Prepared data courses(data cleaning, data visualization) material, engaged in discussions and addressed inquiries during lab sessions, fostering a collaborative learning atmosphere
- Utilized strong technical skills to assist students to understand how to utilize programming languages to analyze data, such as Python, SQL, R
- Conducted comprehensive evaluations and delivered constructive feedback on student assignments and projects, actively promoting the adoption of practices to develop student's critical thinking abilities
- Maintained a constant awareness of the latest trends and advancements in data analysis, integrating industry examples and case studies into the classroom to provide students with real-world context and practical insights

PROJECT EXPERIENCE

Data Analysis of Salary (Python, SQL)

September 2022 – November 2022

- Extracted useful data by **SQL**, removed the duplicate user information through **Python**, imputed the missing salary level value through add the mean data, transformed categorical data into numerical data
- Utilized advanced statistical techniques in Python to perform a comprehensive analysis of compensation, incorporating market salary data and employing logistic regression analysis to identify the key factors that impact compensation decisions
- Split data into training and test data, applied Machine Learning, such as decision tree, logistic regression, and KNN to analyze the key insight from the data, got an accuracy of 77%
- Generated Power BI dashboard for the whole data, which can show dynamic patterns