Ying Liu (Sabrina)

University of Waterloo | 4A Computational Mathematics Major with Co-op program
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SKILLS

Programming Language: R, LaTeX, SQL, Python, MIPS,C, C++, Java, Racket, Linux, HTML,CSS
Visualization & MS Tools: Tableau, Power BI, Pandas, Excel, PowerPoint, Word, LaTeX
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 degree (Computational Mathematics with CO minor.)   *Waterloo, ON*

Relevant Course: Computational linear algebra, Calculus & Algebra; Intro to Computers & Computer system; Object-Oriented Software Development; Data types & structures; Logic and Computation; Nonlinear Optimization; Intro to Game Theory; Statistics & Probability; Accounting & Economic

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

WORK EXPERIENCE

TepaIOT   **September 2023- December 2023**
Testing engineering Intern   *Shenzhen, China*

- Submitted 70+ bugs on ZenTao, executed 1570+ testing cases for each version of UAP system; Developed an automated testing platform using Flask, Selenium, and Pytest, enabling simultaneous execution of 160+ test cases, resulting in an 11% improvement in basic testing efficiency.
- Utilized Navicat for MySQL to locate and modify essential test modules in the database. Demonstrated proficiency in using Linux (SSH) commands for operations like upgrades, mirroring, and asset locating.
- Installed and utilized VMware virtual machines, configuring network segments as per test requirements.
- Developed operational reports and presentations, condensing key metrics for management assessment. Possessed expertise in deep learning containerization, cloud-native solutions, and probe containerization.

Zhuozhuo Technology Co., LTD   **January 2023- April 2023 & August 2021 - November 2021**
Operation Intern   *Chengdu, China*

- Extracted and converted user data into CSV format, employing SQL to join and union for valuable insights.
- Addressed advanced mathematics questions, delivering feedback to students.
- Applied Search Engine Optimization to enhance the search rank for the Camera Math Website.
- Constructed a detailed question bank with comprehensive classification, collaborating with the operations team to analyze data and achieve a 13% increase in overall operational efficiency.
- Developing operational reports and presentations, effectively condensing crucial metrics and performance indicators for management assessment

Xmaker (Teaching Assistant)   **November 2019 - January 2020 (*Chengdu, China*)**

- Prepared material for data courses, covering data cleaning and visualization. Engaged in discussions, addressed inquiries during lab session.Independently taught Laser cutter, 3D printers, and Scratch.
- Utilized strong technical skills to assist students in understanding programming languages for data analysis, including Python, SQL, and R. Conducted assessments to develop students' critical thinking skills and integrated industry trends into lessons for practical insights and real-world relevance.

PROJECT EXPERIENCE

Personal Website & GitHub: https://sabrinaliuying.github.io/ & https://github.com/SabrinaLiuYing

Data Analysis   **September 2023- December 2023**

- Executed a comprehensive Data Analyst project, leveraging a COVID dataset. Conducted SQL data exploration, developed Tableau visualizations, performed data cleaning, and implemented correlation analysis in Python
- Developed a visually impactful Tableau dashboard for analyzing 2023 Toronto AirBnB data.
- Utilized Python to achieve web scraping on Amazon and automate API pulls from a cryptocurrency website.
- Performed data cleaning in Excel and created a comprehensive dashboard for informed decision-making.
- Built a dynamic Power BI dashboard for Apocalypse Food Prep data with a professional survey breakdown.

Other projects   **September 2021- December 2023**

- PYTHON: BMI; ADT Pixel Square; Ordered Tree
- MATLAB: PED Denoise; Heat Flow Modeling
- R: QQ Plot; Histogram; Density; List; CDF
- C++: Hydra; Sum Heap; Mastermind; Bash
- C: Balanced BST; Minesweeper;
- CSS/HTML: Personal CV website