Yiang Mao

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Portfolio: https://yiangmao.github.io/YiangMaoPortfolio.github.io/

Summary

Passionate and self-motivated graduate student at the University of Toronto, pursuing a Master of Information in Information Systems and Design. Equipped with interdisciplinary expertise in programming, data science, and database administration, with hands-on experience as a Database Administrator, Software Programmer, and Computer Science Tutor. Detail-oriented and collaborative team player with an agile mindset, actively seeking co-op opportunities for Summer 2026

Skills

- **Programming Languages:** Python, R, Java, SQL, C++, PHP, Haskell, Prolog, Arduino
- **Database & Reporting:** Oracle Database, MS SQL Server, MySQL, Jaspersoft Report Studio
- **Development Tools & IDEs:** IntelliJ, PyCharm, Eclipse, Colab, Visual Studio Code
- **Additional Skills:** Database Administration, System Design, BPMN, DFD Modeling

Education

- MI | Information Systems and Design | University of Toronto | Sep 2025 - Present
- B.Sc | Cognitive Systems – Computational Intelligence & Design | UBC | SEP 2016 – Nov 2021

Work Experience

DATABASE ADMINSTRATOR | DB SCHENKER | MAR 2023 – MAY 2025
- Administer and maintain SCAN database systems, ensuring data integrity and timely updates for operational efficiency.
- Provide technical support for locally deployed IBM AS400 and Windows server environments, contributing to stable and scalable infrastructure.
- Monitor and analyze system performance, resolving anomalies and optimizing workflows through data-driven troubleshooting.
- Support implementation and testing of system enhancements, contributing to continuous improvement in data operations.

COMPUTER SCIENCE TUTOR – PART TIME | SAAVYPRO EDU INC. | OCT 2022 – OCT 2023
- Provide specialized 1:1 tutoring services for object orient programming, data structures, compiler errors and debugging techniques, using Java programming language.

PROGRAMMER – CO-OP | JOMAR SOFTCORP INTERNATIONAL | SEP 2019 – MAR 2020
- Participated in cloud-based ERP solutions integration projects for 2 clients in the insurance and utilities industry.
- Developed new features for Java-based applications; understood client companies' data architecture, developed mission critical data imports & exports with diverse data sources (web services, FTP sites, JDBC based data sources).
- Develop and execute SQL queries to automate data acquisition from Oracle Database and optimized report production in TIBCO Jaspersoft Studio, improving report efficiency by 18%.
- Tested and prepared implementation of database software upgrades and patch releases for customers; maintained documentation of new and amended procedures.

Projects

CODE BREAKER KARAOKE | PYTHON (TEXT-BASED GAME, COLAB)
- Developed a multiplayer code-breaking game in Python simulating a Mastermind-style challenge between players and a computer.
- Implemented a feedback algorithm to evaluate guesses using symbols (+ for correct digit and position, – for correct digit in wrong position).
- Designed a dynamic computer guessing strategy using permutations and feedback filtering to iteratively narrow down possible codes.
- Built a turn-based game loop with player registration, input validation, and performance tracking (guess count and time).
- Displayed real-time and final leaderboards, and implemented replay functionality for continuous gameplay.

PHOTO EDITOR WEB APP | PYTHON (OPENCV, REMBG, WORDPRESS)
- Working with a Baby Portrait Photography Studio in China to design a program to cut out the portrait part from given pictures and combine with new backgrounds to create new pictures using OpenCV and Rembg library.
- Designing a website with WordPress for the background changer which categorizes and presents background images and enables users to upload and edit their own images online.

SEARCH AUTOCOMPLETION | JAVA, HASKELL
- Designed a program for search autocompletion in both Haskell and Java.
- Implemented autocomplete functionality by using binary search to find all query strings that start with a given prefix; and sort the matching terms in descending order by weight.