

# Mingyang Li . Jarvis Consulting

I achieved Bachelor of Science in Mathematics and Computer Science majors offered by the University of Toronto. I had one year of working experience at GN Education Inc. as an Operation Specialist. Solving mathematical problems makes me feel excited and the innovative strategies always impress me. I am driven by the passion of finding the best solutions not only for my study, but also for my daily routines. So algorithms are one of my favorites. I enjoy observing the patterns in everyday life, proving the correctness of the principles, and optimizing my code in running time and time complexity.

## Skills

**Proficient:** Java, Linux/Bash, RDBMS/SQL, Agile/Scrum, Git

**Competent:** Python, Docker, Dynamic programming, Greedy algorithm, Linear programming

**Familiar:** C, C++, Hashing, SSH/RSA, Networking

## Jarvis Projects

Project source code: [https://github.com/jarviscanada/jarvis\\_data\\_eng\\_MingyangLi](https://github.com/jarviscanada/jarvis_data_eng_MingyangLi)

**Cluster Monitor** [GitHub]: Programmed bash scripts for Linux cluster monitoring agents which collect hardware information and usage data for each host in the cluster and send all the data into PostgreSQL contained by docker. Designed SQL queries for business data analytics.

**Core Java Apps** [GitHub]:

- **Twitter App:** Developed a java application that can create, read, delete tweets from CLI. Utilized Twitter REST API by DAO layer. Handled the business logic by Service layer. Parsed CLI input to call corresponding service methods by Controller layer. Implemented Spring framework using Spring Boot to manage the classes by IoC container.
- **JDBC App:** Implemented CRUD process for a database in a PSQL instance by a java program. Coded JDBC to connect to the database, customer DAO to handle CRUD process, docker container to contain the PSQL instance.
- **Grep App:** Implemented a simple grep app in Java. The app searches for a text pattern recursively in a given directory, and output matched lines to a file. Used slf4j library for log, and regex library to search the pattern. overridden the methods that return a list of all files in a given directory and a list of all strings in a file using Lambda and Stream APIs. Dockerized the grep app by docker and push the image to Docker for easier distribution.

## Highlighted Projects

**Sliding-Puzzle** [GitHub]: Designed a sliding-puzzle game in Verilog. The game displays a 4 x 4 board where only numbers from 1 to 15 are randomly assigned, the player can move squares in 4 directions by 4 buttons on the breadboard to make the numbers in order. Implemented time countdown and move counter to display time left and moves used on the breadboard.

**Photo Album:** Designed a photo album application in Java. The application recursively searches all the photos in the given directory and presents them as icons, in a list or in a gallery. Implemented a tag feature, so that users can add or delete tags for each photo, and filter the result by tags. Implemented serialization to prevent the loss of tags by termination.

## Professional Experiences

**Software Developer, Jarvis (2022/04-present):** Practiced Agile by Scrum. Supported Scrum team members by arranging daily Scrum meeting and posting useful suggestions. Took advice from Scrum Master and Product Owner seriously and produced top-grade work.

**Operation Specialist, GN Education Inc. (2021/01-2022/03):** Managed the workflow throughout all departments within the business. Handled all order information requests from sales. Updated products information and video service on websites for clients. Calculated sales commission and payroll for all staffs. Arranged and hosted daily zoom meetings.

**Tutor, Talent Education/GN Education Inc. (2018/09-2022/03):** Tutored hundreds of university students in Mathematics courses, such as calculus, linear algebra and number theory. Improved their grade by at least one level. Solved any problems asked by students with concrete examples and detailed explanation.

## Education

**University of Toronto (2016/9-2020/11)**, Bachelor of Science, Mathematics and Computer Science - Distinction - Dean's List (2016) - GPA: 3.4/4.0

## Miscellaneous

- Chinese
- Japanese (only a little)
- Badminton player
- Spinning
- Competitive gaming
- Latte art