# Oscar Liang . Jarvis Consulting

I am a junior software developer with Jarvis and a recent graduate from the University of Toronto with a bachelor's degree in Computer Engineering. I have always been passionate about new technology, so I decided to pursue a career in the software industry to learn more about and get the chance to contribute to the innovations that have always excited me. I have experience working with REST APIs, data analytics, and application development, and I look forward to the opportunity to work in data engineering and expand my horizons in the software industry.

## Skills

**Proficient:** Java, Linux/Bash, RDBMS/SQL, Agile/Scrum, Git, C/C++, Microcontrollers, Algorithms/Data structures, REST APIs

**Competent:** C#, Python, Machine Learning with TensorFlow, Docker, Ruby/Ruby on Rails

**Familiar:** JavaScript, HTML/CSS, Android development, SystemVerilog, Computer Graphics with OpenGL/GLSL, Operating Systems

## Jarvis Projects

Project source code: https://github.com/jarviscanada/jarvis_data_eng_OscarLiang

**Cluster Monitor** [GitHub]: Developed a tool for monitoring resource usage in a network of Linux computers. The application uses bash scripting for monitoring nodes, SQL queries to store and retrieve data, and Docker to run the app in a container.

**Core Java Apps** [GitHub]:

- Twitter App: Developed an application that allows users to post, read, and delete tweets using the Twitter REST API. The microservice is developed in Java with Maven and Spring dependency management; it uses Springboot and an MVC architecture and tested with JUnit and Mockito.
- JDBC App: Implemented a application to store customer and sale information for a sample company for the purpose of exploring the JDBC library and common data persistence design patterns. Programmed in Java with a PSQL instance for data storage.
- Grep App: Programmed an application that achieves similar functionality to a simplified version of the Linux grep command. Developed in Java for the purpose of exploring common Java libraries.

**Springboot App** [GitHub]: Developed a stock trading simulator application that uses real stock market data to simulate traders buying and selling stocks. Implemented a RESTful API in Java with Springboot that uses Maven for dependency management, PSQL for data storage, JUnit and Mockito for testing, and makes API requests to IEX Cloud for stock market data. The application also uses a Swagger UI and Docker to run the app in a container.

**Python Data Analytics** [GitHub]: In development

**Hadoop** [GitHub]: In development

**Spark** [GitHub]: In development

**Cloud/DevOps** [GitHub]: In development

## Highlighted Projects

**CardMaestro**: Developed website in a team using Agile development practices that allowed users to sign in, create a card collection, and discuss card trades with other users. Implemented in the Ruby on Rails framework, which uses an MVC architecture. Views were designed using HTML, CSS, and JavaScript, while models were stored with PSQL.

**Capstone Project - ATM Accessibility Improvement**: Collaborated with a multi-disciplinary engineering team that worked with TD to improve the design of ATMs from an accessibility standpoint. Designed a product that aimed to improve ease of use of ATMs for people with physical and visual impairments. The final design included a prototype application built with a React framework. The team provided design documents and specifications to prove effectiveness of the design, and the client continues to review and implement the design to suit their needs.

## Professional Experiences

**Software Developer, Jarvis (2020-present)**: Developed Data Engineering projects in Java with the use of technologies such as Java, Maven, Docker, Springboot, Git, RDBMS/SQL, Python. Collaborated with a team in daily Scrum meetings to implement Agile development practices.

**Assistant Electrical Engineer/Developer, SciCan, Ltd. (2018-2019)**: Developed features in C embedded systems for existing and new products. Designed automated Arduino jigs to aid in the testing of products and features, complete with user interfaces implemented in C#. Collaborated with senior developers and managers in discussions of product design.

**Technology Instructor, Kids Great Minds (2016-2020)**: Taught computer and electronics related courses to classes of 4 to 20 students. Communicated with students by explaining course material in simple terms and responded to questions to ensure clear understanding of concepts.

## Education

**University of Toronto (2015-2020)**, Bachelor of Applied Science with Honours, Electrical and Computer Engineering - Dean's Honour List (2015, 2016, 2019, 2020): 5-time Recipient - GPA: 3.49/4.0

## Miscellaneous

- 4th place - first-year, course-wide Reversi C programming competition
- Music - piano, electric bass, voice
- Competitive gaming
- Reading