

# John Cao . Jarvis Consulting

I am a recent graduate from York University's Lassonde School of Engineering with a Bachelor's degree in Computer Science. I also hold a Bachelor's degree in Chemical Engineering from the University of Toronto. During my time at York, I worked in the school's IT department, where I was the source of support for several business applications. I also spent 16 months working as an intern at Hydro One Telecom where I built scripts in Python and Bash to automate various tasks. Through these various experiences, I was able to demonstrate my problem-solving and communication skills. My interest in pursuing a career in software started when I took an 'Introduction to Programming' course during my first undergrad. Programming drew me in due to its ability to create and build things in a very accessible manner. I was able to see the results of my work in just a couple of lines of code. Currently, I am an Applications and Data Engineer at Jarvis, where I have improved my proficiency in various tools and technologies such as Java, Linux, and Docker. I am looking forward to bring my skills and knowledge and contribute to your team.

## Skills

**Proficient:** Java, Python, Linux/Bash, RDBMS/SQL (PostgreSQL), Agile/Scrum, Git

**Competent:** HTML/CSS, Docker, Maven, REST API, Django

**Familiar:** JavaScript, JUnit, Scikit-learn, Machine Learning, Computer networking

## Jarvis Projects

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

**Cluster Monitor** [GitHub]: Implemented a Linux cluster monitoring solution using bash shell scripts to collect hardware specifications of each server running on CentOS and their resource usage. Data is collected and stored in an RDBMS (Postgresql) provisioned using Docker. The resource usage data is collected periodically using crontab. SQL is used to query the data for later data analysis.

**Core Java Apps** [GitHub]:

- **Twitter App:** Developed a command-line application which allows a user to post tweets, show tweets, and delete tweets via the Twitter Rest API. Implemented using Java, Maven for the project build, Spring for dependency management, JUnit and Mockito for testing, and Docker for deployment.
- **JDBC App:** Programmed an application utilizing the JDBC API to perform CRUD operations on a PostgreSQL database. App functionality was implemented using the DAO design pattern.
- **Grep App:** Developed a Java application that simulates the grep command in Linux. The application takes in a text pattern as user input and searches for it recursively in a given directory. The app is written in Java and uses the Stream API for memory efficiency. Maven was used to build and package the project which is available on DockerHub.

## Highlighted Projects

**Random Lunch Picker** [GitHub]: Developed a web application using Python's Django framework that uses the Yelp Fusion API to randomly suggest a restaurant based on location information and preferred category of food.

**Job Applications Tracker** [GitHub]: Built a web application using Javascript that allows the user to track job application deadlines and upcoming interview times. Utilizes the Javascript object-oriented database IndexedDB to store data in the browser.

## Professional Experiences

**Applications and Data Engineer, Jarvis (2021-present):** Collaborated with a team using Agile/Scrum methodology to develop various back-end and data projects involving technologies and tools such as Linux, SQL, Java, and Docker. Led numerous Daily Scrum meetings where I helped plan the team's goals and solved roadblocks.

**Programmer Assistant, York University Lassonde School of Engineering (2020-Present):** Worked with a team within the Engineering department to provide technical support for various business applications to internal clients. Led requirements gathering and walk-through sessions for faculty members and staff. Liaised with university IT team and application vendor to implement Single Sign-On authentication

**Second Level Support Intern, Hydro One Telecom (2019-2020):** Developed various internal technology tools using Python and Bash to reduce run time of various tasks. Collaborated with senior engineers in resolving network asset management issues. Administered several Ubuntu and Windows servers.

## **Education**

**York University (2017-2021),** Bachelor of Sciences, Computer Science

**University of Toronto (2011-2017),** Bachelor of Applied Sciences, Chemical Engineering

## **Miscellaneous**

- Volunteer, Peer Tutor @ York University (2018-2019): Taught software development concepts and computer science fundamentals to students
- Basketball and soccer