

# Katie Ing . Jarvis Consulting

I am an aspiring Business Systems Analyst with a recent master's degree in mathematics from the University of Toronto. I am drawn to a BSA role because it allows me to merge my exceptional problem-solving skills, developed through my academic background, with my ability to collaborate effectively within teams. With teaching assistant positions, I have developed exceptional communication skills, while research assistant roles have provided experience in data analysis, data gathering and reporting. Currently working as a technical consultant at Jarvis, I have gained proficiency in PostgreSQL. Additionally, I have gained strong relationship development skills through a variety of academic and seasonal positions.

## Skills

**Business Skills:** Communication, Collaboration, Leadership, Creative problem-solving, Agile/Scrum

**Technical Skills:** RDBMS/SQL, Data Modeling/Mapping, Data Analytics, Python, MS Excel

## Jarvis Projects

Project source code: [https://github.com/jarviscanada/jarvis\\_data\\_eng-katieing](https://github.com/jarviscanada/jarvis_data_eng-katieing)

**Linux Cluster Resource Monitoring App** [GitHub]: Developed a monitoring agent that collects and records hardware and memory usage data, to provide valuable insights to business owners and team leads for future planning. This tool empowers stakeholders to make informed decisions regarding resource allocation and optimization. The data is stored and queried on a PostgreSQL database for scalable management. This project is meticulously documented to ensure straightforward setup for current and future clients.

**SQL Project** [GitHub]: Established a comprehensive database for a newly established country club using PostgreSQL. The goal of the database is to be utilized by country club managers to analyze facility usage and demand. Demonstrated usage by executing sample queries and verifying accuracy with test data.

**BSA Crash Course** [GitHub]: Authored a comprehensive Business Requirements Document (BRD) for a Linux Cluster Monitoring Agent project, meticulously detailing the project scope, business requirements, timeline, and cost-benefit analysis. Orchestrated an elicitation meeting with stakeholders and crafted a concise System Requirements Document (SRD) for a Retail Stock Trading Application. Effectively translated business needs into technical specifications by creating architecture and ER diagrams, and communicating thorough use cases and data requirements.

**JDBC App** [GitHub]: Developed a JDBC app to connect to a PSQL database and allow the user to perform CRUD operations to the database from Java.

## Highlighted Projects

**Survey on Classroom Experiences for Underrepresented Groups in Math:** Led a project investigating the classroom culture and its impact on underrepresented students in math and calculus classes. Designed, pilot tested, and distributed a comprehensive survey to approximately 4000 students. Through qualitative and quantitative data analysis, the results highlighted the influence of classroom culture on student engagement, confidence, and future career choices in STEM. Presented a detailed report to the Diversity and Equity committee, enabling informed decision-making on necessary changes and additional support for affected students.

## Professional Experiences

**Technical Consultant, Jarvis (2023-present):** Collaborated with a team of BSAs and developers using Agile methodology; Created a monitoring agent with SQL to be used for resource planning and allocation; Prepared a BRD for the Linux Cluster Monitoring Agent project; Conducted elicitation requirements meetings in order to create a SRD for a trading app; Provided regular documentation and verbal updates on all projects

**Research Assistant, University of Toronto (2020-2021):** Gathered and analyzed qualitative and quantitative data from three projects in the field of post-secondary education and teaching; Investigated retention of knowledge and communication development of past students; Served as team lead during the research process (data analysis in Excel and Google Sheets); Authored an ethics application, proposal, surveys, and written report; Presented study results at the Canadian Undergraduate Mathematics Conference in 2019 and the Fields Institute MathEd Forum in 2020.

**Teaching Assistant, University of Toronto (2019-2022):** Facilitated tutorials for students and supported professors with lectures; Independently designed a weekly series of pre-lecture videos, readings and quizzes for a course with 3000 students.

## **Education**

**University of Toronto (2017-2021),** Bachelor of Science, Mathematics - Dean's List Scholar, 2018

**University of Toronto (2021-2022),** Master of Science, Mathematics - Department of Mathematics Graduate Award, 2021

## **Miscellaneous**

- Running; completed half-marathon races in Toronto and Denver and currently training for a marathon
- Solo traveler; visited 10 countries on various solo trips