

Steven Liu . Jarvis Consulting

Problem solver, culture explorer, lifelong learner. Before joining Jarvis, I graduated from the University of Saskatchewan with an Honors B.Sc. degree in Computer Science and Statistics. The blend of academic training has given me both solid coding and analytical skills. I found my interest in data engineering in my final year of university, which is a discipline that includes all the exciting things I am passionate about. I look forward to opportunities to utilize and develop my skills from Jarvis' clients in Toronto.

Skills

Proficient: Java (Spring, JPA/Hibernate), C++, R, Bash, SQL, Agile/Scrum, Statistics

Competent: Python, Node.js, Docker, Cloud Computing, Machine learning (Scikit-learn, Keras)

Familiar: Angular, Kubernetes, Spark, Scala, DevOps (Jenkins, Travis CI)

Development Projects

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

- **Cluster Monitor:** Followed the software development practices including Agile and Gitflow, I developed an internal tool for cluster administration team to automate database server provision and server usage monitoring. I also wrote clear documentation on architecture design and scripts usage.
- **Core Java Apps:** Developed three Java applications: Grep App, JDBC Demo, and Twitter CLI App. Maven is used as the project configuration & building tool and JUnit4 and Mockito for unit & integration testing. I got familiar with many key concepts in web development such as HTTP, JSON, MVC, and Spring framework in this project.
- **SpringBoot App: In-progress** Developing a trading system with Spring MVC and Hibernate.
- **Cloud & DevOps:** Not started
- **Hadoop:** Not started
- **Spark/Scala:** Not started

Professional Experiences

Data Engineer Associate, Jarvis, Toronto (2020-Present): I'm working on projects using core big data technologies including Cloud, DevOps, Java, Hadoop and Spark. As a team member, I'm responsible for performing the duties of Scrum master in Agile-based team projects to clear obstacles, ensure team cohesion, address collaborative dynamics, and facilitate goal management.

Software Developer, University of Saskatchewan, Saskatoon (2019-2020): Developed R package HTLR for high-dimensional data analysis. In particular, I refactored the legacy C modules with C++ and OOP design. The core Markov chain Monte Carlo algorithm has been optimized to get improved by 30% in speed. I also wrote the package documentation and the user manual.

Data Scientist, Social Sciences Research Laboratories (SSRL), Saskatoon (2018-2019): Collected data from Twitter REST API and performed data cleaning transformation; Performed data mining tasks including bot detection, sentiment analysis, emotion extraction, topic modelling, and social network analysis on 100,000+ tweets and 50,000 users; Produced analysis summary (work samples), reported to the project director.

Education & Academic Projects

University of Saskatchewan (2014-2019), Bachelor of Science (Honours), Computer Science & Statistics

- **Research on Algorithms for High-dimensional Data Analysis** Performed literature review on algorithms for high-dimensional classification and feature selection; Conducted large-scale simulation studies to access the performance of several state-of-the-art packages; Composed technical report as undergraduate honours thesis.
- **Image Processing Project** Implemented a variety of algorithms for image manipulation, segmentation, and classification with Scikit-image, Scikit-learn, and Keras; Created documents combining the code and graphical results with Jupyter Notebook.

- **Sociolinguistics Project** Analyzed the interview data using Excel (t-test, rank correlation, anova) to study the factors influencing heritage language performance of Chinese immigrant children in Saskatchewan; Provided model suggestions and result interpretation to researchers without quantitative background.

Certificates & Awards & Activities

- Amazon Web Services (AWS) Certified Cloud Practitioner - 2020
- Academic exchange to Hong Kong Baptist University (HKBU) - 2017
- Japanese-Language Proficiency Test N2-Passed - 2017