Derek Song . Jarvis Consulting

My name is Derek Song, and I am currently working with Jarvis as a data engineer. My role is to utilize Java and Scala programming languages to build applications. I am proficient in Java, Linux, Bash, SQL, RDBMS, JDBC, and DAO design pattern. Before that, I have achieved a Master's Degree and Bachelor's Degree in Engineering, and I have strong programming fundamentals and learning skills. Besides, I worked in TS Tech Canada Inc. for three years, where I built very good communication skills and achieved the hands-on experience of working with teams and contractors. I really enjoy my work with Jarvis, and I would love to dig much deeper into this area.

Skills

Proficient: Java, Maven, Bash, SQL, Agile/Scrum, Docker, RDBMS, JDBC, DAO, Git/GitHub, Microservice, Postman

Competent: Spring and SpringBoot framework, Oracle

Familiar:: Spark, Scala, Hive, Kafka, Nifi

Development Projects

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

- **Cluster Monitor**: This project requires developing an application to collect server hardware specifications and monitor node resource usages (such as CPU and Memory) in real-time, and store data in the PostgreSQL database for Linux Cluster Administration Team.
- **Core Java Apps**: There are three apps in this project, and they are Grep, JDBC, and TwitterCLI. Grep project requires to build an app to search for a text pattern recursively in a given directory, and output matched lines to a file. JDBC project utilizes JDBC to connect Java application and PostgreSQL database. TwitterCLI application can create, read, and delete tweets from CLI. MVC architecture is invoked to split the application into multiple layers.
- **SpringBoot App**: This app allows users to trade stocks on IEX Cloud. SpringBoot app consists of three tiers based on MVC architecture: Client tier, Application tier, and Database tier. The Client tier allows users to use HTTP clients to consume the REST, such as Postman, curl, or Java. The Application tier is a SpringBoot Java program to process data only. The Database tier ensures that application data is stored in a database instance to avoid data loss.
- **Cloud & DevOps**: Not started
- **Hadoop**: Not started
- **Spark/Scala**: Not started

Professional Experiences

Software Developer, Jarvis, Toronto (2020-Present):

- Completed Linux & SQL and Core Java Apps, and currently work on SpringBoot App, achieved the hands-on experience of software development
- Enhance communication skills and ensure work efficiency of WFH

Engineer, TS Tech Canada Inc., Newmarket (2017-2020):

- Developed applications, optimized performance and wrote documents
- planned and coordinated projects, inspected installation and modification of the automation system

Education & Academic Projects

Beijing Jiaotong University (2009-2011), Master of Electrical Engineering and Automation

- **Ultrasound flaw detector project:** designed the software of an ultrasound flaw detector, which was used to detect flaws and cracks on the railway. The software controlled the detector to emit, receive and process ultrasound and displayed flaws on screen

Beijing Jiaotong University (2005-2009), Bachelor of Electrical Engineering and Automation

Certificates & Awards & Activities

- Patents Awarded: worked with the research team to develop plasma technology to process wastewater and air pollutant, and successfully awarded two patents