Mathew Vassair . Jarvis Consulting

I graduated from a joint program between Brock University and Sheridan College, Computing and Network Communications. This program covered programming theory, practical applications, computer networking concepts and applications, and systems design. Between my education and my varied co-op experiences, I have built up a wide knowledge base and learned how to quickly teach myself new concepts, which I believe makes me a perfect fit for the Data Engineering industry. I'm also interested in the potential crossover between Data Engineering and other fields, both inside and outside the IT sphere, since a little external domain knowledge can go a long way in creating new solutions. Outside of Data Engineering, I enjoy photography, hiking, playing online games, and video game speedrunning.

Skills

Proficient: Java, Bash, SQL, Agile/Scrum, computer networking, MVC design, REST APIs, Git, Wireshark

Competent: C#, Docker, Springboot, Spark/Scala, Kubernetes, AWS, Javascript, React, Hadoop/Hive, Jenkins

Familiar: Python, Active Directory, HTML/CSS, Android App development, Cisco/Juniper router configuration

Development Projects

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

- **Cluster Monitor**: Provides a Bash-based monitoring agent which routinely collects machine resource usage statistics and reports them to a remote PostgreSQL server which runs inside a docker container.
- **Core Java Apps**: A trio of Java projects. The first replicates the functionality of GNU `grep`, the second is a JDBC sample with Data Access Objects, the third interacts with the Twitter REST API using the Apache HTTPComponents library.
- **SpringBoot App**: A stock market trading simulation accessible via REST API, created using the Springboot library. This application is backed by a PostgreSQL server, and both may be deployed using docker containers.
- **Hadoop**: A data analysis project performed using Hadoop and Hive, accessed through Zeppelin Notebook. Analysis was performed on World Development Indicator data, with a focus on Annual GDP Growth. The Hadoop cluster was hosted on Google Cloud.
- **Spark/Scala**: A data analysis project performed using Spark for Scala with Zeppelin Notebook. Analysis was performed on sample sales and customer data using both RDDs and DataFrames in order to compare their styles.
- **Cloud & DevOps**: Explores cloud-based services with Amazon Web Services, and Continuous Integration/Continuous Deployment pipelines with Jenkins. This project involved deploying the Springboot project on AWS Elastic Beanstalk.
- **React UI for SpringBoot App**: A Javascript app which allows users to interact with the SpringBoot project's REST API through their browser. This app is built with React, and may be compiled and served on a standard HTTP server.
- **Kubernetes DevOps Pipeline**: A DevOps pipeline developed for Jenkins, which deploys the SpringBoot application in a Kubernetes cluster hosted by Amazon EKS. It uses Amazon ECR to store Docker images, and provisions a Network Load Balancer to allow scaling.

Professional Experiences

Data Engineer Trainee, Jarvis, Toronto (2019-Present): Implemented practical coding projects designed by industry experts to learn about core Big Data technologies. Researched different technologies to assist in the development of further training projects. Supported teammates by assisting them in troubleshooting their code.

Job Coach & E-Learning Developer, Autism LifePath, Burlington (June 2019-August 2019): Developed e-learning modules on the Znanja e-learning platform, which discuss ways to improve the recruitment and support of Autistic employees. Assisted colleagues in the organization and review of project tasks to improve their productivity.

IT Support Analyst, Pipeline Studios, Hamilton (May 2017-August 2017): Collaborated with coworkers to diagnose and resolve hardware and software issues, improving staff productivity. Instructed staff members on simple solutions to common problems, freeing up IT resources for other tasks.

QA Analyst, N8 Identity, Burlington (May 2015-August 2015): Verified client SOAP-based APIs to improve development team efficiency. Executed regression tests as the project was updated to ensure quality. Maintained effective communication with the client's IT team to resolve API and connectivity issues.

Education & Academic Projects

Brock University (2012-2018), Honours Bachelor of Science, Computing and Network Engineering

- **iOS Stock Market Trading Simulation:** Worked in a small, Agile team to create an iOS app that allowed users to simulate trading Stock Market shares. I developed a REST API as the backend, written in PHP and Python, connected to a MySQL server.
- **Android Global Weather Condition App:** Developed an Android app which collected and displayed weather conditions for various locations around the world. Weather data was collected from OpenWeatherMap's REST API and cached in a local SQLite database.

Certificates & Awards & Activities

- Brock University Entrance Scholarship
- General Motors of Canada Brock Scholar Award
- Volunteer, Autism Job Club (2017-2019): Spoke with attendees at various events to promote the group. Supported speakers with IT issues during the club's annual conference.