Ryan Vickramasinghe

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Summary

- Third-year B.Eng student with a strong foundation in software engineering and object-oriented programming, minoring in financial modelling
- Over 20 months of hands-on work experience within a large organization using Java, big data, database management, and systems design
- Fast and self-motivated to learn/master new technologies; successfully worked in both team, and self-directed environments
- Excellent trouble-shooting skills; can quickly pinpoint issues

Skill Highlights

• Fluent in Java, Python, C++	• Javascript, HTML, CSS	• Databases (NoSQL, SQL, MongoDB)
• Unix/Linux (RHEL)	• Node.js, Express, Angular	• Software documentation
• Data visualization (Tableau, Excel)	• Cloud services (AWS, Azure)	• VHDL

Experience

Database Analyst (Intern) **May 2020 - October 2020**

Royal Bank of Canada - Toronto, ON

- Involved in design an implementation of an enterprise-wide data catalogue, which aggregates and presents available data using Java and NoSQL
- Built a REST API to allow business users to access data
- Communicating with business users, as well as architects to ensure all requirements are met
- Provided leadership as a subject matter expert on graph database management/architecture
- Delivered new features in Agile life-cycles

Enterprise Risk Developer (Intern) **May 2018 - August 2019**

Royal Bank of Canada - Toronto, ON

- Designed and implemented a system which would reconcile various risk ledgers using graph technology, processing millions of data points
- Researched and designed a data model which improved performance by over 60%
- Created an application which allowed users to graphically build complex graph queries to retrieve data from the system
- Evaluating hardware-software requirements, and providing recommendations
- Installed, tuned, and maintained a NoSQL database cluster in a RHEL (Linux) environment
- Used technologies: Java, NoSQL, Linux (RHEL), Graph, Maven, Tableau, Apache Tinkerpop3

References Available Upon Request.

Education

Bachelor of Engineering Science, Computer Engineering **2016 - Present**

The University of Western Ontario - London, ON

- Minoring in Financial Modelling
- Intramural sports team captain and participant

Personal/Academic Projects

SafeSpace App

I am working on a mobile application which will help serve those suffering from mental health issues. This application is a sort of social media platform which will connect those in need, with others who want to help. It will automatically match appropriate mentors (people wanting to help others) with those in need based on similar experiences. The hope is that through this app, more people will feel like they are less alone.

Relevant Skills/Technologies Used:

- *Swift*
- *Node.js*
- *Cloud technology (AWS EC2)*
- *MongoDB*
- *Python*

Car Tail Light Control Circuit

I designed and implemented a circuit using VHDL which would control the tail lights of an automobile. It took 3 inputs (left signal, right signal, brake), and would control 8 LEDs (4 for each side). The circuit included a counter which enabled a “fancy” flashing turn signal, where each of the four LEDs on the respective side would flash one-by-one.

Relevant Skills/Technologies Used:

- *VHDL*
- *Digital Logic*

Portfolio Website

I have built, and continue to add-to, a portfolio website showcasing some information about me, including personal interests, projects I’ve worked on, and more.

Relevant Skills/Technologies Used:

- *HTML*
- *CSS*
- *Javascript*
- *Cloud technology (AWS)*
- *Node.js (REST APIs)*

Machine Learning to Predict Heart Disease

I took a dataset from research done at The University of California Irvine, and performed machine learning on it to predict whether or not an individual would have heart disease based on several statistics (e.g. age, sex, resting heart rate).

Relevant Skills/Technologies Used:

- *Python (SciKitLearn, Numpy, Pandas, Seaborn, Matplotlib)*

References Available Upon Request.