Sean Stappas

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EDUCATION

Bachelor of Engineering (Honours Electrical, Minor Software Engineering)   *Sept. 2014 – May 2018*
McGill University, Montreal, QC
- GPA: 4.0
- Dean's Honour List

WORK EXPERIENCE

Amazon Software Development Engineer Intern (FLASH USL-C Team)   *Jun. 2017 – Aug. 2017*
Vancouver, BC
- Added support for a **group by** clause and **aggregate functions** (sum, average, count, etc.) in an **SQL**-like language used to query subledger data from **DynamoDB** and **S3**. This made it easier for developers and accountants to aggregate financial data.
- Parallelized the above queries by using **MapReduce** with the Apache **Spark** library, greatly increasing their speed and efficiency.
- Practiced behavior-driven development (**BDD**) by creating unit tests with **Mockito**, **JUnit**, and **Guice**, covering **80 %** of the project.

Tactio Health Group Digital Health Software Developer Intern (Cloud Team)   *May 2016 – Aug. 2016*
Montreal, QC
- Created a **PHP** fake data generator with daily **Cron** jobs and a producer-consumer queue in **MySQL**, allowing for more realistic simulation of patients with various medical conditions.
- Developed a **PHP** testing framework covering **60 %** of the back-end API, leading to increased bug detection before deployment.

JNPSoft Java Developer   *May 2015 – Aug. 2015*
Montreal, QC
- Made importing of car parts data from Excel to an **SQL** database over **300 times** faster by implementing a bulk import in **Java.**
- Improved the GUI of the company's main program (PartCat) by using the **MVP** architectural pattern.
- Practiced test-driven development (**TDD**) with **TestNG**, leading to safe and reusable code.

PROJECTS

TLDR News Co-founder, Lead Developer   *Jan. 2017 – Present*
Montreal, QC
- Designed and developed an **iOS** and **Android** service that provides personalized daily summaries of the latest news.
- Created **Java** Tomcat servlets on Amazon **Elastic Beanstalk** to periodically extract articles and output summaries in **JSON.**

Prometheus AI Honours Thesis   *Jan. 2017 – Dec. 2017*
Montreal, QC
- Created the Expert System and Knowledge Node Network **Java** layers of Prometheus, whose goal is to control multiple robots.
- Supervised and guided two volunteers in the lab over the summer to help expand the functionality of the system.

ECSE 211 Robot Competition Project Manager, Java Developer   *Jan. 2015 – Apr. 2015*
Montreal, QC
- Designed an autonomous robot with ultrasonic and light sensors capable of navigating a map and launching balls at targets.
- Implemented obstacle avoidance, moving-average, and differential filtering algorithms in **Java.**

TECHNICAL SKILLS

Languages: Java, Python, PHP, C, Swift, Objective-C, Arduino, VHDL, SQL, MIPS Assembly, LaTeX
IDEs & Editors: Eclipse, Android Studio, IntelliJ IDEA, Visual Studio, Xcode, Sublime Text, vim, Arduino, IDLE
Databases: MySQL, DynamoDB, Firebase, MS SQL Server, MS Access
Operating Systems: Windows, macOS, Ubuntu, CentOS

AWARDS & SCHOLARSHIPS

Collins Memorial Scholarships	*2017*	NSERC Experience Award	*2016*	Ambrose & Woodyatt Scholarships	*2015*
Mendel Family Scholarships	*2016*	Mary Gilsig Scholarship	*2015, 2016*	J. W. McConnell Scholarship	*2014*