

Education

University of Toronto

Honours Bachelor of Science in Computer Science, Co-op

Degree Expected: May 2021

- Awarded U of T Scholars Program Award and Renewable Entrance Scholarship
- Cumulative GPA: 3.45/4.00

Skills

Languages: Java, Go, JavaScript, C++, C, Python, C#, TypeScript

Libraries & Frameworks: Node.js, Express, Angular, Vue.js, RxJS, RxJava

Tools & Technologies: Elasticsearch, Linux, SQL, NoSQL, Docker, Android, Bash, Git, Vim

Experience

More at linkedin.com/in/jr-maingat

RBC Royal Bank

Toronto, ON

Software Developer Co-op

January 2019 — August 2019

- Developed metrics aggregation API with Node.js and Express for graph-based search engine built on Elasticsearch, saving analysts hours per week by automating report generation
- Designed and implemented asynchronous algorithm for graph traversal and document retrieval in Express API, reducing space complexity from $O(n)$ to $O(1)$
- Engineered historical data pipeline for Elasticsearch using C#, enabling trend analytics and monitoring
- Upgraded front-end framework from AngularJS to Angular 7, decreasing page load times by 10%
- **Technologies used:** JavaScript, .NET C#, Node.js, Express, Elasticsearch, Angular, TypeScript, RxJS

Ontario Treasury Board Secretariat

Toronto, ON

Software Developer Co-op

January 2018 — April 2018

- Developed Go API for government-wide social network, decreasing page load times by up to 98%
- Implemented comprehensive backend error logging for Go API, saving hours of debugging time per week
- Reduced build times by 50% by minifying Docker images, leading to a faster Agile/DevOps workflow
- Scripted static code analysis CI tools in Bash, identifying potential code quality issues
- **Technologies used:** Go, Docker, Bash, Vue.js, JavaScript, MySQL, Jira, BitBucket Pipelines

Projects

More at github.com/tagmiam

Durham Region Transit Live →

January 2019 — March 2019

- Developed real-time transit tracking Android app designed for offline mobile use and minimal data usage
- Architected scalable Java service for live bus tracking, seamlessly bridging SMS and REST APIs
- **Technologies used:** Java, Android, RxJava, JUnit, SQLite, Room, Android Studio

Turn: Hacktober 'n' Slash →

October 2017 — December 2017

- Led development of open source, multiplatform C++ game with an active community of 40+ contributors
- Performed 50+ code reviews for new features and bug fixes, prioritizing clean object-oriented code
- **Technologies used:** C++, Linux, TravisCI, CMake

Vim for Visual Studio Code →

July 2017 — August 2017

- Refactored and tested repeatable commands for open source Vim emulator, featured in project roadmap
- **Technologies used:** TypeScript