Matthew D'Souza

2A Software Engineering

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Skills

Languages: Java, C++, C, Python, SQL, JavaScript/jQuery, HTML/CSS, Regular Expressions, LaTeX
Technologies: Git, Flask, MySQL, SQLite, JavaScriptMVC, Highcharts, Swing, Chrome Extensions

Experience

Undergraduate Research Assistant (University of Waterloo) *Sep 2016 – present*

- Contributing to the Checker Framework, a pluggable type system for Java which helps detect and prevent errors in programs at compilation time
- Researching ways to integrate the plugin into new build systems

Software Engineering Intern (Veeva Systems) *May 2016 – Aug 2016*

- Built a Spring service to queue and asynchronously send usage metrics to Google Analytics in order to track user behaviour and find performance bottlenecks
- Identified deficiencies within the product, and took personal responsibility for the design and implementation of improvements
- Developed enhancements and fixes using Java, SQL, JavaScript, and HTML/CSS

Projects

Employment Statistics (JavaScript & Python), mattdsouza.com/EmploymentStats *Aug 2016*

- Iteratively scraped information about co-op employment using regular expressions
- Designed an API using Flask to render HTML templates and query employment information
- Created a user interface allowing the user to filter and explore the data through Highcharts

Metashift (JavaScript & Python), meta-shift.github.io *Aug 2015*

- Processed thousands of calls to the Riot Games API using a Django/SQL back-end
- Dynamically retrieved, aggregated, and displayed large datasets using Highcharts

Sorting Algorithm Visualizer (Java) *Jan 2015*

- Developed a Swing interface to visualize selection, insertion, merge, and quick sort
- Implemented multithreading to compare algorithm efficiency in real time

Education

Candidate, Bachelor of Software Engineering (University of Waterloo) *Sep 2015 – Present*

- 93% cumulative average, first in class (1B term)
- Shadow Day Ambassador, Open House Volunteer

Awards & Achievements

Top 3, Tech Retreat Hackathon, University of Waterloo, Waterloo, ON *Aug 2015*

- Created a direct peer-to-peer chat client, circumventing the need for a server using UDP hole-punching