

Matthew D'Souza

2A Software Engineering

mattdsouza.com

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github.com/dsouzam

Skills

Languages: Java, C++, C, Python, SQL, JavaScript/jQuery, HTML/CSS, Regular Expressions, LaTeX
Technologies: Git, Spring, Flask, JavaScriptMVC, Highcharts, 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, taking 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 matches the Riot Games API using a Django back-end
- Dynamically retrieved, aggregated, and displayed large datasets using Highcharts

Sorting Algorithm Visualizer (Java) – github.com/DSouzaMI/SortingVisualizer 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 for Bachelor of Software Engineering (University of Waterloo) Sep 2015 – Present

- 93% cumulative average, first in class (1B term)
- Shadow Day Ambassador, Open House Volunteer, class representative for the Waterloo Engineering Endowment Fund

Awards & Achievements

Top 3, Tech Retreat Hackathon (University of Waterloo) Aug 2015

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