

Darian Fry

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Skills

Python, Java, C++, JavaScript, HTML5, CSS3, R, Matlab, git, github.

Education

University of British Columbia - Vancouver, Canada

08/2015 - 06/2020

Bachelor's Degree · Mathematics
GPA 3.0 · Class 2

Lancaster University - Lancaster, UK

01/2020 - 06/2020

Exchange · Computer Science

Go-Global Award: received tuition scholarship for academic performance

Projects Experience

Buses 'R Us - Java Android Application

A map application that marks stops and bus routes on the Greater Vancouver Transit system (Translink), retrieves real time arrival information at stops, plots user's location on the map, and highlights the nearest stop. Extracted and implemented Java class associations from UML class diagrams. Wrote and executed extensive unit tests for robust classes in jUnit. Built multiple parsers including a string parser, JSON Object parser, and JSON Array parser.

Traveling Salesman Project - C++ Research Project

Researched on the NP-Complete version of the Travelling Salesman Problem (TSP). Applied Christofides, Kruskal's, Nearest Neighbour, and Brute Force algorithms to solve several real life specific versions of the TSP. Showed how the methods for each scenario can be modified so the problem can be solved in polynomial time. Improved the previous best runtimes of the algorithms researched by 3 to 10 percent. The project was primarily programmed in C++.

Courses

Data Structures and Algorithms, SQL Database Systems, Numerical Computation for Algebraic Problems, Algebra and Coding Theory, Computational Linear Algebra, Computational Methods
Probability, Stochastic Processes, Statistics, Regression Analysis, Linear-programming, Discrete Optimization, Optimization in Graphs and Networks, Abstract Algebra, Combinatorics, Vector Calculus, Mathematical Analysis, Differential Equations I & II, Algorithms Specialization, Python For Everybody Specialization, Introduction to HTML5, Introduction to CSS3, Interactivity with Javascript, Advanced Styling With Responsive Design, Front-End Web UI Frameworks and Tools: Bootstrap 4

Achievements

Elite Varsity Athlete - UBC Swim team

09/2015 - 07/2018

- 3 Time Bronze Medalist at Can-West Championship (2016 - 2018)
- Finalist at World Trials and Summer Nationals (2016 - 2018)
- UBC Varsity Swim Team, Tuition Athletic Scholarship (2015-2018)

Experience

Lifeguard, UBC Aquatic Center - Vancouver, Canada

05/2017 - 12/2019

Effectively managed the relationship with the patrons, while maintaining all critical pool utilities. Instructed all levels of swimmers and provided the appropriate technical expertise.