HASAN ALTAF

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TECHNICAL SKILLS

Programming	Web + Database	Data Analysis	Tools/Libraries/Frameworks
Java / C#	JavaScript/TypeScript	Pandas / NumPy	Git
Python	React.js	Tableau	JUnit Testing
C++	Firebase	Microsoft Excel	Agile Development

EDUCATION

University of British Columbia   Expected Graduation: May 2023
Combined Major in Computer Science and Business   Cumulative GPA: 4.0/4.0 (90% Average)
- Ranked among the top 10 in a faculty of over 700 students
- Academics: Software Construction – JAVA OOP (A+), Data Structures and Algorithms (A), Models of Computation (A+)

WORK EXPERIENCE

University of British Columbia   Vancouver BC, Canada
Undergraduate Teaching Assistant   Sep 2020 – Present
- Teaching Assistant for CPSC 221 (Basic Data Structures and Algorithms) taught in C++
- Communicating the design, analysis, and justification of fundamental data structures and algorithms

BC Hydro   Burnaby BC, Canada
Procurement Analyst Intern – Generation Infrastructure Projects Team   Jun 2019 – Aug 2019
- Analyzed financial feasibility using Python and Excel to provide cost-reduction strategies, saving over $500,000
- Led the revamp of the Indigenous Selective Procurement Strategy for BC Hydro Project Procurement
- Prepared RFP documents and contracting plans for projects up to $15,000,000

TECHNICAL PROJECTS

GroUber – Carpool Router   Aug 2020
- Engineered a carpool scheduling web-application using React.js, TypeScript, Node.js and Cloud Firestore database
- Spearheaded the development of solving the NP-hard problem of carpool routing using heuristic techniques
- Implemented API's from Google Maps and Radar.io to calculate and visualize routes and distances

Forex Arbitrage Detector   Jul 2020
- Java application that parses real-time currency pairs pricing data from an API and detects arbitrage opportunities
- Implemented a graph through an adjacency list with the Bellman-Ford Algorithm detecting negative weight cycles
- Integrated object-oriented design principles throughout the application to increase cohesion and scalability

Sendex – Chat Application   Jul 2020
- Built a real-time Chat Application with React.js and Firebase, including authentication, hosting and Cloud Firestore database

Sorting Algorithm Visualizer   Jun 2020
- Used C# to create a windows forms application with an interactive user interface to visualize sorting algorithms
- Applied Object-Oriented Design Principles to implement selection sort, insertion sort, merge sort and bubble sort

ADDITIONAL EXPERIENCE

Microsoft TEALS   Vancouver BC, Canada
Teaching Assistant   May 2020 – Present
- Teaching Assistant for the Intro to Computer Science Course for high school students
- Communicating various programming concepts to underserved students in the Burnaby Youth Hub Community Center

WestPeak Research Association   Vancouver BC, Canada
Technology Coordinator   Jul 2020 – Present
- Redesigned the organization's website from scratch using Gatsby.js, increasing Lighthouse performance score by 185%
- Website content can now automatically update based on changes to Excel spreadsheets and markdown files