

HASAN ALTAF

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TECHNICAL SKILLS

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

EDUCATION

University of British Columbia

Combined Major in Computer Science and Business

Expected Graduation: May 2023

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+)
- Activities: BizHacks 2019 (Hackathon) Top 5 (50 Teams), UBC Boxing Club, JDC West (National Case Competition), The C.O.D.E Initiative

TECHNICAL PROJECTS

GroUber – Carpool Router

- 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

- 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

- Built a real-time Chat Application with React.js and Firebase, including authentication, hosting and Cloud Firestore database
- Implemented business logic of sending and receiving messages, notifications and finding new users

Sorting Algorithm Visualizer

- 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

WORK EXPERIENCE

Microsoft TEALS

Teaching Assistant

Vancouver BC, Canada

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

Technological Director

Vancouver BC, Canada

Jul 2020 – Present

- Developing a static website with react based framework Gatsby, increasing loading speed by over 200%
- Using Excel to perform Discounted Cashflow Analysis and Comparable Company Analysis
- Publications: Equity Research Report – Sturm, Ruger & Co ([NYSE: RGR](#))

BC Hydro

Procurement Analyst Intern – Generation Infrastructure Projects Team

Burnaby BC, Canada

May 2019 – Aug 2020

- 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
- Negotiated with contractors in Generation Infrastructure Projects
- Integrated engineering specifications into business documents