

Abdullah Sherwani

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EDUCATION

University of Alberta

Bachelor of Science in Computer Engineering Co-op - Software Option

Edmonton, AB

Sep. 2021 - Apr 2026

PROJECT EXPERIENCE

Portfolio Website

Huffman Tree | *Python*

Nov 2023 - Dec 2023

- Implemented a data compression and decompression algorithm using Huffman coding, a widely used compression technique.
- Utilized the Python pickle module to develop functions for serializing and deserializing Huffman trees, enabling efficient storage and retrieval of tree structures.
- Employed the bitio library to handle binary I/O, improving the efficiency of reading and writing bits for compression and decompression processes.

Open Source Project Website | *React, Node.js, Firebase, Bootstrap*

Oct 2023 - Dec 2023

- Created a website to post and join open source projects through react and node.js.
- Allows users to personalize information pages to display relevant information that employers would see
- Stylistic implementations for all pages of the website are utilized through CSS and Bootstrap.
- Firebase implemented for the database to hold user's profiles and information

Map Assignment | *C++*

March 2023 - April 2023

- Parsed a road network text file to construct a weighted directed graph, optimizing data representation.
- Calculated edge weights by determining the Manhattan distance between graph vertices, enhancing accuracy
- Implemented a function to efficiently compute least-cost paths from a given vertex, utilizing Dijkstra's algorithm with a C++ priority queue (binary heap), enhancing efficiency.
- Extended the server code to handle route requests from a client using named pipes, clarifying and optimizing communication.

WORK EXPERIENCE

Lathe Machine Operator

July 2021 – August 2021

Fine Machine Works

Calgary, AB

- Operated and cleaned the main CNC saw producing 50+ parts per day
- Organized and stored the 50+ produced parts and delivered to coworkers
- Cooperated with coworkers to construct the dimensions of parts made from 10+ unique metals and utilized the dimensions while operating the saw.

CNC Machine Assistant

July 2018 – August 2018

Fine Machine Works

Calgary, AB

- Cleaned the 8 large CNC machines, removing all the oil, lubricant and metal shaving remaining inside the machines.
- Collaborated with coworkers to allot 10-20 minutes for machine cleaning.
- Evaluated and assisted in quality control of 100+ products using various tools.

LEADERSHIP EXPERIENCE

Islamic Center of South Calgary, *Volunteer*

Jan 2017 - Sep 2021

- Volunteered in 200+ community events, responsible for setting up and packing up equipment and necessities.
- Taught in the Quran School with approximately 5 students assigned, beginning from basic arabic alphabets and pronunciation, and building up to proactively reading and memorizing the holy Quran.
- Operated the credit/debit card terminal which allowed for donations to be made to the center.

TECHNICAL SKILLS

Languages: Java, Python, C/C++, C#, SQL, JavaScript, HTML, CSS, MATLAB

Frameworks: React, Node.js, WordPress, Bootstrap

Developer Tools: Github, Docker, VS Code, Eclipse, AutoCad

Misc: MS Suite, Pandas, NumPy, Matplotlib, Drones