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## Highlights of Qualifications

### Technical Skills

**Programming:** Three years of practical experience in C, C++, Python, and Java, gained through completing assignments/projects involving data structures, algorithms, and software design

**Database Management:** Developed effective databases by modeling and utilizing DBMSs such as MySQL

**Robotics:** Successfully designed and implemented a GUI in Python for drone control, integrating electronics, and displaying real-time IMU data

**Web Development:** Contributed to the development of three web applications using technologies such as HTML, CSS, JavaScript, MERN stack (MongoDB, Express, React, Node.js), Flask, and MySQL

**Computer Networking:** Demonstrated a strong understanding of network protocols and architecture by applying IP stack concepts to develop client-server and HTTP proxy software

**Software Development:** Knowledgeable in software industry standards, including software models, diagrams, designs, documentation, and development methodologies/life cycle

**Software Testing:** Skilled in software verification using frameworks such as pytest, JUnit, and Selenium

**Version Control:** Experience managing/tracking changes to group/personal repositories with Git/GitHub

**General Computer:** Proficient with Windows/PowerShell, Linux/Bash, and the Microsoft suite

### Professional Skills

**Problem Solving:** Demonstrated a strategic approach to problem-solving for *over 11 years*, resulting in successful technical solutions at work and school

**Teamwork:** Collaborative team player who respects and supports team members, encourages open discussions, and effectively resolves conflicts to maintain a positive work environment

**Communication:** Excellent oral communication skills, actively listening to facilitate productive conversations. Proficient in concise written communication, utilizing writing revision and word choice

**Continuous Learning:** Committed to enhancing skillset by actively researching modern technologies

**Strong Work Ethic:** Proven motivation through achievements such as earning an apprenticeship, exceptional university preparation GPA, Dean's List, and near completion of an engineering program

**Attention to Detail:** Meticulous approach to tasks, ensuring a high-quality performance until completion

## Education

### **Bachelor of Science in Software Engineering**

**Expected May 2024 (including internship)**

Schulich School of Engineering, University of Calgary

Cumulative GPA: 3.4 / 4.0, Dean's List for 2 semesters

### Relevant Coursework

Computer Security, Computer Networks, Web-Based Systems, Software Project Management, Software Design, Database Management Systems, Data Structures and Algorithms, Software Development, Software Testing and Reliability, Software Requirements, Software Architecture, Programming Fundamentals, Operating Systems, Computer Organization, and Digital Circuits

### Relevant Projects

**Unmanned Underwater Vehicle****September 2022 – April 2023**

Unmanned Vehicles Robotarium Lab, Calgary, AB  
*Python, custom electronics, and a drone prototype*

- Coordinated with a team of software and electrical engineering students to design and implement a software/hardware interface for drone communication
- Developed a surface-level GUI application in Python that controls an underwater drone and displays real-time IMU data such as acceleration
- Integrated electronics by creating communication software that enables a GUI to communicate with onboard electronics (e.g., Raspberry Pi, PX4 autopilot, and Power Management Board)
- Built software capable of controlling actuators by sending PWM signals (i.e., servo motors, pneumatic grippers), sending multiple commands simultaneously, and resetting vehicle state

**University Marketplace Web Application****September 2022 – December 2022**

University of Calgary, Calgary, AB  
*MongoDB, Express, React, Node.js, and Socket.IO*

- Collaborated with a team of software engineering/computer science students using Git/GitHub to develop a *fully responsive* university marketplace web application
- Implemented functionality such as sharing buy/sell posts, updating/deleting posts, search filters, banning users, and deleting user accounts
- Developed a real-time chat messaging system to communicate with other users using Socket.IO

**Group Home Data Management Web Application****September 2021 – December 2021**

University of Calgary, Calgary, AB  
*Python, Flask, HTML, CSS, JSON, and MySQL*

- Led a team to develop a data management/sharing web application for professionals involved with a group home (e.g., therapists, doctors, and youth workers)
- Created an API to exchange data formatted as JSON objects when communicating with MySQL
- Designed a database as a team of software engineering students using an Extended Entity-Relationship Model (EERD) and Relational Model (RM)

**University Preparation Program****January 2016 – December 2018**

MacEwan University  
Cumulative GPA: **3.97**

**Heavy Equipment Technician Apprenticeship Program****October 2012 – December 2013**

Northern Alberta Institute of Technology

**Additional Work Experience**

*D.G.C. Contracting Inc.*

**February 2012 – January 2016****Heavy Equipment Technician Apprentice**

Spruce Grove, AB

- Performed repairs, fabrications, maintenance, and project tasks on a variety of over 200 off-road and highway equipment units that were used for installing TELUS telecommunication systems