Chad Holst holstch@outlook.com | github.com/HolstCh | chadsportfolio.ca

Objective Summary: Results-driven mechanic transitioning to software development, eager to contribute effectively to a new team. Proven ability to overcome challenges involving implementing, maintaining, and testing complex systems

Education

Bachelor of Science in Software Engineering **September 2019 – December 2023**
Expected Graduation with Distinction [May 2023] Schulich School of Engineering, University of Calgary
Cumulative GPA: 3.5 / 4.0 [Dean's List Award]

University Preparation Program **January 2016 – December 2018**
Cumulative GPA: 4.0 / 4.0 MacEwan University, Edmonton, AB

Projects

Unmanned Underwater Vehicle **September 2022 – April 2023**
Python, MAVlink, drone prototype, and hardware Unmanned Vehicles Robotarium Lab, Calgary, AB

- Created a distributed system capable of simultaneous underwater drone control and real-time IMU data display
- Designed a Python-based Graphical User Interface (GUI) that followed MVC and client-server architectural patterns
- Integrated communication between the GUI and 9 electronic devices (e.g., Raspberry Pi 3B and PX4 autopilot)
- Led a multidisciplinary team of 5 involving software and electrical engineering students to fulfill client requirements

University Marketplace Web Application **September 2022 – December 2022**
MongoDB, Express.js, React.js, Node.js, and Socket.IO University of Calgary, Calgary, AB

- Developed a responsive web app in a team of 6; featuring item post-sharing, post-management, and real-time chat
- Built a RESTful API, client-server architecture, feature sets for three user roles, and simultaneous user support
- Utilized JWT authentication for secure access, enabling admin moderation (e.g., user banning and account deletion)

Skills

Languages: JavaScript, HTML5, CSS3, Python, Java, C, and C++
Frameworks: React.js, Node.js, Express.js, Flask, Tailwind CSS, Apache Hadoop, and Spark
Developer Tools: Git, NPM, Bash, Postman, and Jupyter Notebook
Database Management: Relational databases using MySQL and non-relational cloud databases such as MongoDB
Development Methodologies: Agile methodologies and User-Centered Design (e.g., Task-Centered Design)
Software Design: Low-level design patterns and high-level architectural patterns (e.g., MVC and client-server)
Software Testing: Automated testing frameworks (e.g., JUnit, Pytest, and Selenium)

Additional Work Experience

D.G.C. Contracting Inc. **February 2012 – January 2016**
Heavy Equipment Technician Apprentice Spruce Grove, AB

- Implemented a hydraulic dump truck, drilling mud pumping system (over 50 gallons per minute), 40,000-pound capacity tractor hitch, TELUS telecommunication systems, and overhauled a Sellick S150 forklift
- Collaborated in a 3-person team or individually, executing maintenance and modifications on a fleet of 200+ units
- Demonstrated technical expertise by performing repairs, engine and body swaps, tuning, and fabrications