# **Christian Valdez**

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# **Education**

## **Master of Engineering - Software**

May 2023 - May 2024

Schulich School of Engineering, University of Calgary

# **Bachelor of Science in Electrical Engineering**

Sep 2018 - May 2023

Schulich School of Engineering, University of Calgary

# **Skills**

- Languages: Java, Python, JavaScript, C, C++, SQL, HTML, CSS, Batch, Bash.
- Frameworks and Tools: React, React Native, Node.js, Express.js, Django, Git, JUnit, Azure DevOps,
  Firebase, Supabase, MySQL, TeamCity, VMware, Postman, jQuery, Bootstrap, ClearCase, Apache Spark.

### **Experience**

#### **Graduate Research Assistant**

Jun 2023 - Present

Biometric Technology Lab, Calgary, AB

- Developed adaptive neural network architectures for detecting abnormal respiration patterns in sleeping clients, tailoring these to various video inputs and environments.
- Utilized advanced person detection algorithms to improve region-of-interest identification, thereby enhancing spatial feature extraction efficiency.
- Automated data cleansing and metadata extraction processes, achieving significant efficiency gains.

# **Software Quality Assurance Intern**

Jul 2021 - Apr 2023

Computer Modelling Group Ltd., Calgary, AB

- Analysed quality-related information using automated black-box tests, providing daily feedback to developers, and maintained bug tracking through Azure DevOps.
- Enhanced software standards by integrating ClearCase builds with Git commands.
- Engineered automated workflows for simulating templates, collecting results, and populating Excel, enhancing data visualization and streamlining manual operations.
- Migrated all tests to a unified TeamCity server, enhancing scheduling and reducing maintenance needs.
- Implemented tests for memory and threading errors, bolstering product reliability and security.
- Strategized and implemented testing protocols for complex, multi-system environments.

Projects Personal Website

### DayHome Timesheet System (In Progress) | React, MySQL, Supabase

- Developing a tool to augment the Crafts Web Application, efficiently processing and displaying data from CSV files on a web interface.
- Implementing automation features to aggregate data and facilitate reporting through CSV exports.

#### Dating App Clone (In Progress) | React Native, Firebase

• Collaborating on the creation of a cross-platform dating app, utilizing React Native to deliver a smooth and responsive user experience.

### Flight Reservation System | React, Node.js+Express.js, MySQL

- Designed a user-centric web application enabling seamless flight browsing and booking experiences.
- Implemented administrative tools for managing flight crews and schedules, with agent-specific interfaces.

### Capstone Design Project | C, STM32 Microcontroller

- Partnered with Genoptic LED in the design of an STM32-based IoT device for real-time plant growth monitoring and data transmission to a local server.
- Achieved a high degree of precision with the prototype, ensuring data accuracy of over 95% within specified parameters