Christian Valdez

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Education

Master of Engineering - Software (Expected)

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

Experience

Graduate Research Assistant

Jun 2023 - Present

Biometric Technology Lab, Calgary, AB

- Developed adaptive neural network architectures tailored for various environments, enhancing the detection of abnormal respiration patterns in sleeping clients.
- 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

- Enhanced software quality by conducting automated black-box tests, reducing turnaround time through effective tracking and feedback using Azure DevOps.
- Strategized and implemented testing protocols for complex, multi-system environments.
- 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.

Projects

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

- Developing an augmentation tool for the Crafts Web Application, enhancing data processing efficiency and improving user interface clarity for CSV file handling
- Implementing automation features to aggregate data and facilitate reporting through CSV exports.

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

• Collaborating on creating 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