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, TypeScript, C, C++, C#, SQL, HTML, CSS, Batch, Bash.
- **Frameworks and Tools:** React, React Native, Node.js, Express.js, Django, Git, Azure DevOps, MySQL, MongoDB, VMware, Postman, Docker, JUnit, jQuery, Bootstrap, ClearCase, TeamCity, Apache Spark.

Experience

Gradudate 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
- Analyzed 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.
- Created automated workflows for template simulation, result collection, and Excel data population, streamlining manual processes and improving data visualization.
- 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.
- Mentored a new intern to become a productive team member and revised training documentation.

Projects   Portfolio Website

DayHome Timesheet System (In Progress) | React, MySQL, Django
- Developing a tool to augment the Crafts Web Application, efficiently processing and displaying data from CSV files on a web interface.
- Automatically aggregates and exports data to a CSV file for enhanced reporting.

Dating App Clone (In Progress) | React Native
- Collaborating on the development of a cross-platform dating app, leveraging React Native for seamless 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.
- Successfully achieved ±2% accuracy in the prototype, ensuring data accuracy exceeds 95% within the target parameters.