# Christian Valdez

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## Education

**Master of Engineering - Software**                                   May 2023 - Present
- Schulich School of Engineering, University of Calgary

**Bachelor of Science in Electrical Engineering**              Sep 2018 - Apr 2023
- Schulich School of Engineering, University of Calgary

**Capstone Design Project**
Genoptic LED Inc., Calgary, AB
- Designed an IoT device using STM32 to record plant growth and send data to a local server.
- Prototype demonstrated ± 2% accuracy, with over 95% of data received within the specified range.

## Skills

- **Languages:** Java, Python, JavaScript, C/C++, C#, SQL, MATLAB, VHDL, HTML/CSS, Batch, Bash.
- **Framework and Tools:** Git, MySQL, Django, Bootstrap, NodeJS, ExpressJS, Postman, jQuery, JUnit, Azure, SQLite, ClearCase, Arduino.

## Experience

**Research Assistant**                                                      Jun 2023 - Present
Biometric Technology Lab, Calgary, AB
- Conducting research to identify respiration patterns from video-based sources.
- Developing Python scripts to automate the process of data cleaning and extraction.
- Utilized the Python libraries NumPy, Pandas, OpenCV, Scikit-learn, and Matplotlib.

**Quality Assurance Intern**                                           Jul 2021 - Apr 2023
Computer Modelling Group Ltd., Calgary, AB
- Analyzed quality-related information through automated black-box tests, providing daily product feedback to developers. Logged and tracked bugs using Azure DevOps.
- Enhanced software standards by modifying ClearCase builds and incorporating Git commands.
- Developed automated workflows for template simulation, result collection, and Excel data population, streamlining manual processes and enhancing data visualization.
- Transferred all tests to a unified TeamCity server for improved scheduling and reduced maintenance.
- Introduced memory and threading error tests to enhance product reliability and security.
- Coached a new intern to become a high-performing team member and updated training documents.

## Projects

**Calgary Neighborhood Poll**
- Developing an interactive statistics website using open Calgary data to aid prospective buyers or renters.
- Building the website with Django and managing data using SQLite.

**Portfolio Website**
- Developed a responsive website using for a customized portfolio.
- Coded using HTML, CSS, JavaScript.

**Automated PowerPoint Slides**
- Developed Python scripts to automate populating PowerPoint slides, reducing manual tasks by over 80%.