

Martin Silva-Diaz

905-808-7950 | martin.eduardo.silva.diaz@gmail.com | linkedin.com/in/martinsilvadiaz

Technical Skills

Current Engineering student at the University of Waterloo looking to contribute to process and manufacturing optimization with skills in:

- **Process & Quality Improvement** | Lean Six Sigma, process analysis, identifying inefficiencies and waste reduction options.
- **Quality Assurance** | Project coordination, documentation of testing methods, product quality tracking, and compliance preparation.
- **Programming Languages** | Python (Flask), SQL (Postgres), Excel (VBA), HTML, CSS, R.
- **Data & Analytics** | Statistical analysis, process optimization, database management, data modeling & visualization.
- **Languages** | English (fluent), Spanish (fluent), French (DELF Diploma).

Experience

- Product Compliance Intern | IPEX by Aliaxis** May 2025 – Aug 2025
- Developed Product Quality Plans (PQPs) to support quality assurance and adequate testing for 500+ products in large-scale thermoplastic manufacturing across multiple fabrication plants for municipal water infrastructure projects across North America.
 - Developed a new document to quantify defects in fabricated products, allowing for minimized health and safety risks.
 - Coordinated with compliance engineers and quality plants from various provinces to prepare technical documentation ensuring compliance of hundreds of products per product line.
- Software Developer | Magma Core (Linux Foundation Project)** Aug 2025 – Present
- Contributing as a mentee to backend development and open-source API design for a Linux Foundation project (originally founded by Meta) focused on expanding internet access in underserved communities.
 - Engaging in backend development in a collaborative open-source environment.
- Autonomy Software Developer | Waterloo Aerial Robotics Group** Aug 2025 – Present
- Taking part in autonomy software development with the Waterloo Aerial Robotics Group focused on drone automating.
 - Developed an automated parameter verification tool for 1,000+ flight control settings using MAVLink data from a Pixhawk interface.
 - Implemented computer vision simulation using YOLO and PyTorch, allowing drones to identify targets and follow paths autonomously.
- Software Engineer | Krachi's Space Technologies Inc** Apr 2025 – Aug 2025
- Collaborated with a startup technology company focused on building secure, scalable software and financial technology platforms.
 - Contributed to a prototype financial platform with mobile app integration for secure data management.
 - Built backend systems and APIs to handle client information and financial transactions.
- Aquatics Instructor/Lifeguard/Cashier | Town of Oakville** Sep 2023 - Aug 2024
- Managed and coached 50+ students per term, improving participant progress tracking using structured assessment reports.
 - Maintained public relations and pool safety, able to handle multiple tasks and communicate effectively with patrons and students.
 - Worked in financing transactions and regulatory reporting of sales with accuracy and demonstrated strong interpersonal skills.

Projects

- Stock Dashboard | Python Flask, SQL, PostgreSQL, JavaScript, CSS, HTML**
- Developed a full-stack stock dashboard using PostgreSQL that provides real-time updates of held stocks from various brokers.
 - Integrated live market data through the Yahoo Finance API for automated retrieval and visualization;
<https://stock-dashboard-5ivw.onrender.com>
- Financial Planning Tool | Excel, VBA**
- Developed an Excel VBA-based financial budgeting tool with automated data processing for expense tracking.
 - Interface uses intuitive spreadsheet navigation and real-time data validation to ensure accurate financial calculations.
- Personal website | HTML, CSS**
- Developed an html based personal website; <https://martins26.github.io/Martin-Silva-Diaz-Personal-Website/index.html>

Education

- University of Waterloo** Sep 2024 - Apr 2029
- Bachelor of Applied Science in Management Engineering, specializing Artificial Intelligence.
- Coursework in lean six sigma, process optimization, programming, data structures & algorithms, stochastic statistics and data modeling.
 - Building foundational skills in data science, problem-solving, project management and process improvement.
- Sheridan College** Jul 2023 - Aug 2023
- Completed the Data Science Foundations course as part of the Certification in Data Analytics (CDATA), covering data analysis, statistics, visualization, quality and applications in financial performance.