

Tristan Guevarra

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Technical Skills

Languages: Python, Java, SQL, C, C++, JavaScript, HTML, CSS, PHP, Assembly, LaTeX

Developer Tools: React, Node.js, PowerBI, MySQL, Vite, MongoDB, Express.js, Git/GitHub, XAMPP, Qt, Entra/Azure, JetBrains, VS Code, Eclipse, Android Studio, Figma, PowerShell, UNIX

Education

Queen's University, BSc in Computer Engineering

Sept 2022 - Apr 2026

- **Coursework:** Object Oriented Prog., Data Structures, Algorithms, Database Management Systems, Data Science
- **Awards/Organizations:** Q3C, QWeb, Queen's Engineering Society, Excellence Scholarship Award

Experience

Software Developer, ThisIsElectric – Remote

Present

- Developing responsive website using MongoDB, Express.js, React and Node.js stack, enhancing online presence.
- Creating reusable React components, enhancing maintainability and reducing development overhead for future updates by 50%.
- Implementing Tailwind CSS for dynamic, reusable components, reducing front-end development time by 40%.
- Integrating Power BI with MongoDB, creating analytics dashboards that visualize customer inquiries, service conversions, and response times, enabling data-driven decisions and optimizing operations by 30%.
- Building a robust API system to streamline service requests, contact forms, and user authentication

Undergraduate Teaching Assistant, Smith Engineering

Winter 2025

- Selected as 1 of 3 undergraduate TAs (7 total) to support 200+ students in Object-Oriented Programming.
- Helped students implement Java concepts using Eclipse IDE and Android Studio for development projects.
- Facilitated labs on core OOP concepts, including inheritance and polymorphism, with 90%+ satisfaction rates.

Undergraduate Teaching Assistant, Smith Engineering

Fall 2024

- Guided 800+ engineering students in APSC141, Introduction to Programming for Engineers I, by teaching core C programming concepts such as control structures, iterative loops, debugging, and efficient coding practices.
- Led office hours and labs with a 95%+ success rate, ensuring timely completion and positive feedback.

Projects

Movement Categorization Desktop App | Python, Pandas, NumPy, Matplotlib, Scikit-Learn, PyCharm

- Developed a desktop app to classify accelerometer data as 'walking' or 'jumping' using Logistic Regression, processing input CSV files and outputting labeled results with high accuracy.
- Achieved 90% accuracy in classifying walking vs. jumping by extracting features with Pandas and NumPy and training a Logistic Regression model with Scikit-Learn.
- Enhanced efficiency by 20% using PyCharm for debugging and maintaining scalable codebases.
- Cut preprocessing time by 25% by organizing accelerometer data into HDF5 format for efficient analysis.
- Improved model interpretability using Matplotlib to visualize feature relationships and classification performance metrics.

TradeLab Algorithmic App | C++, Qt

- Led a performing team of 7 developers, earning a 95% excellence rating for impactful leadership and efficiency.
- Engineered a scalable trading education platform using C++ and the Qt framework, equipping beginners with interactive modules, quizzes, and simulations, and achieving a 91% user satisfaction rating
- Conducted rigorous testing and debugging to ensure a high-quality product, reducing post-deployment issues by 25% and increasing system reliability.