Julian Tiqui

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Education

Queen's University, Kingston, Ontario — Sep 2022 – Apr 2026
Bachelor of Applied Science in Computer Engineering

Skills

- **Software and Platforms**: Microsoft Office, Google Suite, ServiceNow, Microsoft Azure, Microsoft Entra ID, Snowflake, Microsoft 365
- **Hardware**: Circuit Analysis (KiCAD, LTSpice), Soldering, Computer Design (Quartus), Digital Systems Implementation, CAD (SolidWorks, Onshape)
- **Programming Languages**: C/C++, Python, Java, SQL, Nios II, VHDL, MATLAB
- **Frameworks and Libraries**: ROS/ROS2, Gazebo, NumPy, Matplotlib, OpenCV, TensorFlow, Artificial Intelligence, Agent Development

Project Experience

Queen's aQuatonomous: Autonomous Surface Vehicle Team — Jan 2024 – Apr 2026

Co-Captain (Apr 2025 – Apr 2026)

- Led 110+ members across six subteams and a 14-person executive board, managing technical strategy, funding, competition logistics, and reports that secured over $40,000 in external support.
- Led aQuatonomous to a 3rd-place overall finish at RoboBoat 2026, ranking 1st in North America.
- Presented aQuatonomous's ASV work at conferences, showcases, and sponsor events.

Autonomy Lead Engineer (Apr 2024 – Apr 2025)

- Architected aQuatonomous's autonomy stack from the ground up, establishing the ROS 2, perception, simulation, and navigation framework for future development.
- Directed a 15-member subteam in extending and validating the stack through Gazebo simulation, LiDAR, and computer vision integration, placing the team in semifinals at RoboBoat 2025.

Control and Autonomy Engineer (Jan 2024 – Apr 2024)

- Implemented and benchmarked Dynamic A*, Dijkstra's, and Potential Field algorithms in C++ and Python using ROS 2 on an NVIDIA Jetson, improving autonomous path efficiency by 22%.

Wireless Network Emulator for Federated Learning (Capstone Project) — Sep 2025 – Apr 2026

- Built a Linux-based wireless network emulation platform using Mininet-WiFi and traffic control to model latency, jitter, packet loss, and bandwidth constraints for federated learning evaluation.
- Integrated Flower and TensorFlow Federated, defined convergence metrics, and executed controlled studies on how network impairments affect training stability and accuracy.

Autonomous Car Project: Perception and Autonomy Lead — Jan 2025 – Apr 2025

- Built a real-time OpenCV and TensorFlow sensor-fusion pipeline, achieving 95% detection accuracy.

Work Experience

Choice Properties REIT — May 2026 – Present

Analyst, AI & Automation

- Partner with business teams to identify manual, repetitive, and time-intensive processes suitable for AI-enabled automation, translating operational needs into functional requirements.
- Map current-state workflows, document process steps, controls, and pain points, and define measurable success criteria to quantify automation opportunities and business impact.
- Support the evaluation, testing, and validation of AI tools, dashboards, governance documentation, training materials, and reusable automation patterns.

Amica Senior Lifestyles — Jun 2024 – Mar 2026

SharePoint Contractor (Aug 2025 – Mar 2026)

- Developed and optimized enterprise SharePoint infrastructure and automated workflows, improving cross-department efficiency and system reliability for 1,600+ users.

IT Intern (Jun 2024 – Aug 2024 & May 2025 – Aug 2025)

- Automated user and device provisioning through Microsoft Azure and Entra ID, audited 1,100+ Microsoft Teams groups, deployed MealSuite hardware, and launched a SharePoint platform for 1,600+ employees, improving governance and reducing IT support tickets by 30%.