ANGEL BENNY PAUL

angelbennypaul@gmail.com | 416-436-9401| https://www.linkedin.com/in/angelbennypaul

EDUCATION

B.A.Sc in Mechatronics and Robotics Engineering **Sept 2021 – Jan 2026**
Queen's University, Kingston, ON
Relevant Coursework: Data Structures and Algorithms, Neural and Genetic Computing, Signals and Systems

SKILLS

Technical: C++, Python, Javascript, MATLAB, Simulink, GitHub, SolidWorks, ROS2, Linux, Bash, SLAM, Docker
Managerial: Jira, Monday, REDCap, Microsoft Teams, Confluence

EXPERIENCE

Operations Executive*, Queen's AutoDrive (https://autodrive.engineering.queensu.ca)* **Jul 2024 – June 2025**

- Led **120-member** team in developing SAE Level 4 AV for a 5-year GM- and SAE-sponsored competition, managing logistics, design reviews, and operations.
- Revamped team culture and workflows, dedicating **35+ hours/week** to improve processes and performance.
- Facilitated Scrum meetings to align goals and enhance collaboration across sub-teams, resulting in a **30% improvement** in meeting key project deadlines, including full-stack testing and integration.
- Oversaw road legalization, safety planning, AV test logistics, and troubleshooting real-time challenges.
- Secured **$100K+ in sponsorships** and managed digital presence across LinkedIn, Instagram, and website.
- Authored SAE-compliant safety docs (SOTIF, FIA, HMT, SRS) and **embedded SSDLC security practices**.

Research Assistant, *LIMB Lab (https://www.queensu.ca/limb/)* **Apr 2024 – Dec 2024**

- Developed and implemented PAL and Arm Posture Perturbation programs in **MATLAB/Simulink**, utilizing **Simulink controllers** and automated tests within a **CI/CD pipeline** to meet **ISO 13485** standards.
- Managed Kinarm robot software by creating tasks in Simulink, troubleshooting issues on **Jira**, and optimizing system performance and functionality.
- Worked with real-time hardware, including fixing sensors and motors in **clinical environments** at Kingston General and Hotel Dieu hospitals.
- Conducted data audits for 50+ clinical subjects using **REDCap** and robotic databases, ensuring data accuracy and integrity.

Embedded Systems Developer, *Queen's AutoDrive* **Feb 2024 – Jun 2024**

- Developed and implemented lighting code for the vehicle's CAN system in **C++.**
- Designed and implemented **multithreaded C++ software** to interface with a Chevrolet Bolt via its CAN bus.
- Monitored and decoded CAN messages using **Vehicle Spy X** to analyze communication protocols.

Innovation Lead, *Queen's AutoDrive* **Feb 2024 – Jun 2024**

- Led a team of 4 to research how to create an autonomous car suitable for people with disabilities.
- Managed to reach **4th place** against 12 universities across North America and presented at the SAE WCX conference to over 400 people.

Coding Instructor, *Code Ninjas* **Apr 2022 – Sept 2022**

- Mentored **120+ students** aged 5-14 through assignments in robotics, JavaScript, C++, and CSS.
- Introduced students to programming using Scratch during free trial sessions; achieved an 84% join rate.
- Maintained a **70% customer retention** rate which resulted in an additional **$15,000** in revenue.

PROJECTS

Autonomous CO_2 Detecting Robot - *Python, C++, JavaScript, SolidWorks, ROS* **Jan 2023 – Apr 2023**

- Developed an autonomous CO2-detecting robot utilizing **ROS** and **LiDAR** sensing for accurate navigation and displayed CO2 level with 96% accuracy.
- Implemented **SLAM** to visualize and map the robot's workspace in real-time for improved environmental awareness.
- Facilitated data collection and transmission to the user in an easily understandable format through **Raspberry Pi and Arduino integration**.