

Antoine Dangeard

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EDUCATION

McGill University — B.Eng Software Engineering, Minor in Applied A.I. <i>CGPA 3.85/4.0</i>	Montreal, Canada 2020 - 2025
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EXPERIENCE

Research Assistant <i>McGill N.L.P. Lab</i> <ul style="list-style-type: none">TBD	Aug. 2024 – Present Montreal, Canada
H.i.L. Software Engineer Intern <i>Torc Robotics</i> <ul style="list-style-type: none">Ongoing	May – Aug. 2024 Montreal, Canada
Software Engineer Intern in Robot Team <i>Vention</i> <ul style="list-style-type: none">Optimized joint speed limiting during Cartesian linear movements of 6-D.O.F. robotic arms, resulting in increased maximum speed of linear movements and improved U.X.Added CAD U.I. to view and modify end-of-arm tool offsets and implemented self-collision checking for end-of-arm tools.Built connection status detection and corresponding UI for UR arms.	May – Aug. 2023 Montreal, Canada

ROBOTICS

Project Manager and Software Lead <i>McGill Humanoid Project</i> <ul style="list-style-type: none">Founded undergraduate design team focused on building an R.L.-controlled 16 D.O.F. humanoid robotLed 10 engineers, successfully raising over \$10,000 in value and finishing electrical/mechanical/software designs in under 4 months.Single-handedly created software architecture, R.L. and R.O.S. simulations (Unity/MuJoCo), and R.L. training framework from scratch.	Jan. 2024 – Present Montreal, Canada
Research Volunteer <i>Prometheus Lab</i> <ul style="list-style-type: none"><i>Dec. 2023–Present:</i> Served as Multi-Agent Robotics Advisor for new students joining the lab. Provided mentorship, advice, and technical assistance to several teams.<i>Sep.–Dec. 2023:</i> Re-designed and implemented server infrastructure for multi-agent inter-robot communication and control. Reduced number of lines of code in the server from over 5000 to less than 300 whilst preserving functionality and improving maintainability and compatibility with robot hardware.<i>May.–Sep. 2023:</i> Technical lead for multi-agent robotic delivery project. Obtained \$7500 TechAccel Summer Stipend from McGill Engine and implemented control, mapping, and planning ROS packages for vehicle from scratch.	May. 2023 – Present Montreal, Canada
Software Team Lead <i>McGill Robotics AUV</i> <ul style="list-style-type: none">Created tutorials, an onboarding plan, and thorough documentation for new members; more than doubling retention rate from previous years.Implemented mandatory code reviews, issue tracking, scheduled documentation upkeep, and automatic integration testing pipelines, successfully preventing any major code breakages throughout the year.Build new simulation from scratch with improved performance, more Q.o.L. features, and better sim-to-real than previous framework.Assisted members with state estimation, pose control, computer vision, and simulation.	May 2023 – Aug. 2024 Montreal, Canada
Software Team Member <i>McGill Robotics AUV</i> <ul style="list-style-type: none">Built object detection, mapping, and autonomous planner from scratch, enabling the team to reach semi-finals for the first time since 2020.	Sep. – May 2023 Montreal, Canada

SKILLS

Languages: Fluent in English and French
Programming: Python, Javascript, C++, Bash, C, Java, C#
Frameworks: ROS (1 & 2), Pandas/NumPy, React.js, CUDA, Node.js, PyTorch/TensorFlow/Keras, Unix, WebSocket/TCP/HTTP/UDP
Developer Tools: Colab/Jupyter, Docker, Git, GitHub/GitLab, AWS

ACTIVITIES AND AWARDS

Cube Technician at The Cube (McGill 3D printing service)	September 2023 – January 2024
Tomlinson Engagement Award for Mentoring in MECH 360	December 2023
2 nd place at McGill A.I. Hackathon	September 2023
Intramural dodge-ball Team Captain	January – May 2023
1 st place at McGill RoboHacks	March 2023
Top 5 of 115 at McHacks	January 2023
Top 10 at McGill Data Challenge	January 2023
Grade A in McGill A.I. Society M.L. Boot-Camp	September – December 2021