

Nicholas Nadeau

CTO, PROFESSIONAL ENGINEER (P.ENG.), DOCTOR OF PHILOSOPHY (PH.D.)

Montréal, Canada

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Work

SmartOne

CHIEF TECHNOLOGY OFFICER

- Product innovation and R&D, focusing on ethical AI and human-AI collaboration for operational excellence.

Montréal, Canada

2024 - Present

Acrylic Robotics, BRIDGR, XMachina, XPR Labs

ADVISOR AND INVESTOR

- Empowered startups with AI-driven operational enhancements and strategic growth mentoring.
- Facilitated access to high-growth AI startups and to advancing metaverse accessibility.

2020 - Present

Nadeau Innovations

FOUNDER

- Strategic support for emerging technology startups and corporate innovation.

Montréal, Canada

2022 - 2024

Airbotics, Citera, FemTherapeutics, Gratified, KonnectAI, NuBinary, OpAI Innovations, Osedea

FRACTIONAL CTO

- Spearheaded technology strategies and innovation across AI/ML and emerging technologies.

2022 - 2024

1X (Halodi Robotics)

CHIEF TECHNOLOGY OFFICER

- Spearheaded development of humanoid robots, securing a pivotal contract with ADT Commercial.
- Facilitated over \$100M in funding, with notable contributions from OpenAI.
- Drove global expansion, laying the foundation for advanced robotics and AI/ML initiatives.

Montréal, Canada & Oslo, Norway

2021 - 2023

AON3D

ENGINEERING MANAGER

- Led engineering through \$11.5M Series A funding, enhancing 3D printing innovation.

Montréal, Canada

2018 - 2021

Rogue Research Inc.

R&D ENGINEER

- Led R&D in medical device innovation, including cognitive neuroscience and veterinary robotic surgery.

Montréal, Canada

2011 - 2018

Education

École de technologie supérieure

PH.D. - AI AND COLLABORATIVE ROBOTICS

- Innovated safer, intuitive collaborative robotics with a thesis on freehand ultrasound, advancing human-robot interaction.
- Developed AI/ML models for improved physical human-robot interaction, redefining controller tuning and calibration.
- Created [Pybotics](#), a popular open-source toolbox for robotics kinematics.

Montréal, Canada

2014 - 2019

McGill University

B.ENG. - MECHANICAL ENGINEERING, BIOMEDICAL ENGINEERING

Montréal, Canada

2010 - 2014

Skills & Certifications

Certifications	Open Water Diver (PADI), Professional Engineer (Ordre des ingénieurs du Québec)
Technical Leadership	Agile Methodologies, Strategic Innovation, Technology Roadmapping
Software & Tools	CI/CD, Cloud Platforms, Data Engineering, DevOps, Docker, Infrastructure as Code, Simulation
AI/ML Technologies	Computer Vision, Generative AI, MLOps, Natural Language Processing, Reinforcement Learning
Programming Languages	C/C++, Go, Java, JavaScript (Node.js), Python, Rust
Languages	English, French

Select Publications

- 2020 **Improved Test Methods for Polymer AM Inter-Layer Weld Strength and Filament Mechanical Properties**, Richard G. Cole, Kazem Fayazbakhsh, Abraham Avalos, Nicholas A. Nadeau. ASTM International Conference on Additive Manufacturing (ICAM).
- 2019 **Towards the development of safe, collaborative robotic freehand ultrasound**, Nicholas A. Nadeau. École de technologie supérieure.
- 2019 **Pybotics: Python Toolbox for Robotics**, Nicholas A. Nadeau. The Journal of Open Source Software.
- 2019 **Impedance Control Self-Calibration of a Collaborative Robot Using Kinematic Coupling**, Nicholas A. Nadeau, Ilian A. Bonev. MDPI Robotics.
- 2018 **Evolutionary Motion Control Optimization in Physical Human-Robot Interaction**, Nicholas A. Nadeau, Ilian A. Bonev. IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS).
- 2018 **An Extrinsic Dexterity Approach to the IROS 2018 Fan Robotic Challenge Modality B**, Jennifer Kwiatkowski, Jean-Philippe Roberge, Nicholas A. Nadeau, Louis L'Écuyer-Lapierre, Vincent Duchaine. IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS).
- 2017 **Characterization of a robotic micro-surgical system for small-animal neurosurgery**, Nicholas A. Nadeau, Alexandru Ciobanu, Fred Lamer, Mathieu Coursolle, Sean McBride, Stephen Frey, Roch Comeau. Society for Neuroscience.

Volunteer & Committees

- 2022 **Startup Mentor**, Next AI
- 2022 **Startup Mentor**, Creative Destruction Lab (CDL)
- 2021 **Technical Committee ISO/TC 299 - Robotics**, Standards Council of Canada Mirror Committee
- 2020 **Mentor**, Techstars Montréal AI Accelerator
- 2020 **Mentor**, FounderFuel Startup Accelerator
- 2018 **Committee F42 on Additive Manufacturing Technologies**, ASTM International