

# Thomas Mousseau

<https://thomasmousseau.github.io>

<linkedin.com/in/thomas-mousseau>

SOFTWAREENGINEERING

(514)-601-6377

thom.mousseau@gmail.com

<github.com/ThomasMousseau>

## EDUCATION

---

### POLYTECHNIQUE MONTRÉAL

*Master's in Artificial Intelligence (M. Eng.)*

**September 2025 – May 2026**

(Montréal, Canada)

### POLYTECHNIQUE MONTRÉAL

*Bachelor in Software Engineering (B. Eng.) with AI specialization*

**September 2021 – May 2025**

(Montréal, Canada)

## WORK EXPERIENCES

---

### AIRY3D, Machine Learning Engineer Intern, Advanced Research Team

**May 2025 - August 2025**

- Enhanced vision foundation models by integrating temporal awareness for downstream tasks
- Established and implemented temporal-specific metrics for both training optimization and benchmark of Monocular Depth Estimation (MDE) models

### CLINIA, Machine Learning Engineer Intern, R&D Team

**May 2024 - August 2024**

- Optimized embedder models, in a RAG context, by modifying their architecture
- Designed and developed a benchmarking project for multiple NLP models
- Utilized and contributed to NVIDIA Triton Inference Server and TensorRT repositories

## PROJECTS / ACTIVITIES

---

### ELECTRIC FSAE OF POLYTECHNIQUE, Python, C++ and ROS2

**September 2023 - July 2025**

- Technical Lead of the Driverless team
- Led cross-functional teams to integrate mechanical and electrical systems
- Designed and implemented the perception pipeline with cameras (Stereolab ZED X) and LiDAR (HESAI-AT128)
- Designed and implemented path planning algorithm autonomous system
- Built Model Predictive Controller (MPC) as the lateral controller of the autonomous vehicle
- Optimised code base to run using CUDA on Jetson Orin
- Created a telemetry system compatible with ROS2

### HACKATHONS, Machine Learning & Web Development

**2019 - To this day**

- Won 2 Machine Learning Hackathons and participated in 3 more

## SKILLS

---

- **Programming/scripting languages:** Python, C++, Rust, Terraform, Bash
- **Hard skills:** PyTorch, ML, RL, NLP, CV, JAX, CUDA, Infrastructures, ROS, Embedded systems, AWS,
- **Soft skills:** Passionate, Communication, Collaboration, Resourcefulness, Self-motivated
- **Certifications:** English certification C-2 from Boston EF Learning Center
- **Languages:** French (native), English (fluent)

## RELEVANT GRADUATE CLASSES

---

- Reinforcement Learning (INF8250AE)
- Representation Learning (IFT6135)
- Probabilistic Graphical Model (IFT6269)