Thomas Mousseau

21 rue de Franchimont, J7B 1W4

linkedin.com/in/thomas-mousseau

S O F T W A R E E N G I N E E R I N G

(514)-601-6377
thom.mousseau@gmail.com

github.com/ThomasMousseau

EDUCATION

POLYTECHNIQUE MONTRÉAL, 4th year student   **September 2021 – May 2025**
Bachelor in Software Engineering (B. Eng.) with AI specialization   (Montréal, Canada)

CEGEP LIONEL-GROULX   **September 2019 – May 2021**
Diplômes d'études collégiales in Computer Science and Mathematics   (Montréal, Canada)

WORK EXPERIENCES

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

DESJARDINS, *DevOps Software Engineering Intern, Escouade Stagiaire*   **May 2023 - August 2023**
- Conceived and deployed microservices modules and their pipelines for multiple environments
- Implemented infrastructures for CI/CD tasks automation

GROUP TMX, *DevOps Software Engineering Intern, DevOps Tools*   **May 2022 - August 2022**
- Developed and supported Linux servers and workstations using RedHat satellite.
- Deployed, improved and maintained Kubernetes clusters using AWS, Docker and Rancher.

PROJECTS / ACTIVITIES

ELECTRIC FSAE OF POLYTECHNIQUE, *Python, C++ and ROS2*   **September 2023 - To this day**
- Technical Lead of the Driverless team
- Led cross-functional teams to integrate systems and improve vehicle performance
- Designed and implemented the perception pipeline with cameras (Stereolab ZED X) and LiDAR (HESAI-AT128)
- Developed SLAM and path planning systems
- Built Model Predictive Controller (MPC) and sensors fusion using extended kalman-filter
- Created and optimized the telemetry system and a PID controller for traction and launch control
- Implemented a State of Charge (SoC) algorithm based on custom discharging cell models

HACKATHONS, *Machine Learning & Web Development*   **2019 - To this day**
- Won 2 Machine Learning Hackathons and participated in 3 more

SKILLS

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