

Logan Labossiere

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EDUCATION

McGill University

Montréal, QC

Bachelor of Science in Computer Science, Specialization in Artificial Intelligence Sept. 2021 – May 2025

- **GPA:** 3.71/4
- **Clubs:** SSMU Powerlifting Club (VP Internal), Compete McGill (VP Marketing), McGill Mens' Volleyball Club Team, McGill Children's Health Alliance of Montréal, McGill Robotics Club, McGill AI Society
- **Courses:** Multi-Agent Robotics, Reinforcement Learning, Ethics of Intelligent Systems, Applied Machine Learning, Artificial Intelligence, Database Systems, Intro to Computer Vision, Algorithm Design, Theory of Computation, Software Design, Statistics, Probability

University of Victoria

Victoria, BC

Undergraduate Studies Sept. 2020 – August 2021

- **GPA:** 8.26/9
- **Clubs:** UVic Engineering Students' Society (First Year Representative)

EXPERIENCE

Undergraduate Researcher

Jan. 2024 – Present

COSMO Stochastic Mine Planning Laboratory Montréal, QC

- Developed a Multi-Agent Reinforcement Learning (MARL) framework for stochastic mine planning optimization, integrating combinatorial optimization, game theory, and machine learning to model a real-world planning problem under uncertainty.
- Implemented state-of-the-art reinforcement learning algorithms with both continuous and discrete action spaces, comparing the effectiveness of various agent communication mechanisms on local and global outcomes.

Machine Learning Developer

Feb. 2024 – Present

McGill Robotics Club- Drone Team Montréal, QC

- Compared real-time object detection models on a real-world dataset to perform real-time object detection and classification for obstacle avoidance and pathfinding tasks.
- Integrated the computer vision module with ROS, facilitating efficient communication between the drone's vision and navigation systems.

SOFTWARE PROJECTS

Playlist Synchronizer | *Python, Flask, PostgreSQL, AWS Lambda, React Native*

Jan. 2025 – Present

- Developed a cross-platform mobile application that synchronizes shared playlists between users of different music streaming platforms.
- Utilized industry standard tools including AWS for server and database hosting, OAuth 2.0 for secure user authentication, React Native for mobile frontend development, and Flask for server design.

Tabulator | *JavaScript*

Sept. 2023

- Developed and published a Google Chrome extension allowing users to automate the grouping and deletion of excess tabs (available here).
- Recipient of a Featured badge, bestowed to extensions following technical best practices and meeting high user experience and design standards.

CONFERENCES, PEER-REVIEWED WORKSHOPS AND TALKS

- **Labossiere, L.**, Yaakoubi, Y. & Dimitrakopoulos, R. (Dec. 2024). Decentralized Smart Mining Complexes: Balancing Short-Term Efficiency with Long-Term Targets Using Multi-Agent Reinforcement Learning. COSMO Travelling Technical Day. Perth, Australia.
- **Labossiere, L.**, Yaakoubi, Y. & Dimitrakopoulos, R. (Sept. 2024). Decentralized Smart Mining Complexes: Balancing Short-Term Efficiency with Long-Term Targets Using Multi-Agent Reinforcement Learning. Montréal AI Symposium. Montréal, Canada.
- **Labossiere, L.**, Yaakoubi, Y. & Dimitrakopoulos, R. (June 2024). Decentralized Smart Mining Complexes: Balancing Short-Term Efficiency with Long-Term Targets Using Multi-Agent Reinforcement Learning. COSMO Technical Day. Montréal, Canada.

PRE-PRINTS

- **Labossiere, L.** & Al Handawi, K. (Under Review) Jointly Training Task-Specific Encoders and Downstream Models on Heterogeneous Multiplex Graphs. ICLR.
- **Labossiere, L.**, Yaakoubi, Y. & Dimitrakopoulos, R. (Pre-Print) A Decentralized Approach to Stochastic Mine Planning Optimization.

AWARDS

INFORMS: OR/MS Tomorrow Mini-Poster Competition - \$250 (2024).

McGill University: Stochastic Simulation and Optimization Undergraduate Award - \$3000 (2024).

Huawei: McHacks 9 Custom Challenge: Best Pandemic Life-Related Hack- \$150 (2022).

Suncor Energy Inc.: Emerging Leaders in Engineering Award - \$1056.90 (2021).

University of Victoria: Indigenous Engineering and Computer Science Entrance Scholarship - \$4500 (2020).

University of Victoria: Entrance Scholarship - \$3000 (2020).

TECHNICAL SKILLS

Languages: Python, Java, C/C++, SQL, JavaScript, HTML/CSS, R, OCaml

Frameworks: React, Node.js, Apache Hadoop, Flask, JUnit, PyTest, FastAPI

Developer Tools: Git, Docker, AWS, Vercel, Unix, VS Code, PyCharm, IntelliJ, Google Suite, Microsoft Office

Libraries: PyTorch, Pandas, NumPy, Matplotlib, Scikit-Learn, OpenCV, OpenAI Gym

REVIEWING EXPERIENCE

Workshops: Montréal AI Symposium (2024)