

Mathys Loiselle

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LinkedIn: linkedin.com/in/mathysloiselle

TECHNICAL SKILLS

Programming | Python • JavaScript • Java • C • C++ • C# • TypeScript • Clojure • Erlang

AI/ML | NumPy • TensorFlow • Keras • OpenCV • Dlib

Web & Cloud | Angular • React • Azure • Firebase • REST APIs • HTML/CSS • Bootstrap

Tools | VSCode • Git • JetBrains Products • Jupyter Notebook • Google Colab

Languages | English (Native) • French (Native)

EDUCATION

Bachelor of Science – Computer Science

2022 - 2026 (Expected)

Concordia University - Montreal, QC

- Dean's List: Fall 2023 – Summer 2024
- Relevant Courses: Data Structures & Algorithms (A+), Theoretical CS (A+), Computer Graphics (A)

Minor in Mathematics and Statistics

2022 - 2026 (Expected)

Concordia University - Montreal, QC

- Relevant Courses: Linear Algebra (A), Multivariable Calculus (A+), Probability & Statistics (A)

High School Diploma

2018 - 2022

Mission Vista High School - Oceanside, CA, USA

- 3.84 GPA

EXPERIENCE

AI Software Developer - Internship

Sep 2024 – Dec 2024 (4 months)

TaylorMade Golf – Carlsbad, California, USA

- Implemented complete voice features for TaylorMade chatbot (Angular/C#/Azure)
- Built Mahalanobis model for order processing anomaly detection (Python)
- Developed automatic color adjustment algorithm (Python/React)
- Research in CV, ML, and prompt engineering for POC development

Computer Vision Engineer

Oct 2023 - Jan 2024 (4 months)

Nano Stride - Montreal, QC

- Implemented real-time robotics head motion control algorithms
- Built computer vision pipeline using OpenCV/Dlib
- Collaborated with cross-functional engineering team

Dataset Annotator

Nov 2023 (1 month)

Concordia Applied AI Institute - Montreal, QC

- Dataset annotation for ML model training/testing
- Collaborative team input for data optimization

PROJECTS

Reinforcement Learning Rocket League Bot

Nov 2024 – Present (1 month)

- Built DQN-based reinforcement learning agent
- Implemented custom reward functions and game state modeling
- Created autonomous vehicle control system

IEEE Smart and Radio Controlled Marshmallow Cannon

Jun 2024 – Aug 2024 (3 months)

IEEE Concordia - Montreal, QC

- Developed facial recognition and tracking for marshmallow turret
- Implement Haar Cascade as an efficient facial detection model
- Implement KCF tracker as lightweight tracking framework
- Collaborate with multidisciplinary engineering team

Cody AI Service Robot

Oct 2023 - Dec 2024 (3 months)

Nano Stride - Montreal, QC

- Developed real-time facial recognition and tracking for moving robot head
- Paired TDOA system with speech analysis and lip synching to identify target speaker
- Researched statistical and machine learning techniques
- Collaborated with multidisciplinary engineering team

Personal Portfolio Website

August 2024 (1 month)

- Used React and Tailwind CSS to implement a responsive layout and modern UI
- Support for English and French languages

AWARDS & ACTIVITIES

Coding Competition

Sep 2023

SCS - Montreal, QC

- Received 6th place in the competition
- Coded various problems as quickly as possible over the course of 2 hours

Member

Sep 2022 – Present (2+ years)

- *Google Developer Student Club (GDSC)*
- *Software and Computer Science Society (SCS)*
- *Concordia Ski & Snowboard Club (CSSC)*

INTERESTS

Travelling Abroad

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|----------|--------------|
| • France | • UK |
| • Italy | • Vietnam |
| • Spain | • Costa Rica |

Sports

- | | |
|----------------|-----------------|
| • Ice Hockey | • Table Tennis |
| • Snowboarding | • Badminton |
| • Biking | • Rock Climbing |

Passions

- Computer Science: Machine Learning, Deep Learning
- Mathematics & Statistics
- Physics: Quantum Physics and Astrophysics