Milton Rosenbaum

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Education

MCGILL UNIVERSITY

BA - Computer Science / Philosophy
GPA: 3.85
2021-2025 Montreal, CA

Languages

Fluent English
Intermediate French

Skills

PROGRAMMING LANGUAGES

JavaScript • Rust • C++ • Python • LaTeX • SQL • Haskell

SOFTWARE DEVELOPMENT

- Systems design in Java
- Python for high level data science
- Systems programming in Rust, Go, C++
- Competitive programming

COLLABORATION

- Critical thinking and capability to construct and assess logical arguments.
- Analytical problem solving, ability to work in teams and independently to solve complex, multifarious problems
- Proficiency synthesizing and presenting information in a clear manner

Extracurriculars

ETHICS IN TECHNOLOGY ROUNDTABLE

Inter-faculty Speaker Series
McGill, UQUAM, MIT and MILA

- Facilitated interdisciplinary dialogue about emerging ethical challenges in AI and social media
- Coordinated multiple professors, department chairs, and doctorate students from three universities and four faculties
- Scheduled and organized event setup and take down

VP EXTERNAL AFFAIRS PHILOSOPHY STUDENTS ASSOC.

- Organized, planned, executed various large-scale, inter-disciplinary events in collaboration with multiple faculties
- Coordinated merch sales
- Represented Philosophy Students at Arts Student Union meetings

Projects

AUTOMATIC PROOF CHECKER

https://github.com/milrosen/calculus-of-constructions
Implementation of Calculus of Constructions

- Built a programming language for verifying proofs, synthesizing ideas from philosophy, math and computer science
- Created database in Postgress SQL, Github Actions CI pipeline, Elixir backend Phoenix Frontend
- Demonstrated a deep knowledge of graduate-level computer science by realizing the Calculus of Constructions

RICS NEURAL NETWORK WITH PYTORCH

github.com/milrosen/RICS-in-pytorch
Machine Learning Project

- Applied advanced concepts in convolutional neural networks to overcome challenges related to rotational invariance in image recognition tasks
- Created and implemented cutting-edge mathematical models for artificial intelligence
- Gained familiarity with modern deep learning frameworks

Work Experience

PHILOSOPHY OF NOTATION RESEARCH ASSISTANT

Hired as Research Assistant by Prof. Dirk Schlimm

- Conducted novel research in philosophy of mathematical notations
- Collaborated with field expert to produce a unique and nontrivial complexity measurement for notation systems
- Developed and tested a thesis through experiments with Python

FUNCTIONAL PROGRAMMING COURSE ASSISTANT

McGill CA Comp 302

- Provided constructive, positive feedback to students in a timely manner
- Maintained consistent, professional correspondence with students and the professor
- Demonstrated flexibility with and adaptability in the classroom to meet the changing needs of students and the professor

PHILOSOPHY OF LOGIC TUTOR

McGill

- Assisted students to identify weaknesses in course understanding and study habits
- Improved students scores from failing to class average
- Worked with the professor to improve the accessibility of the teaching style