

Juan David Guerra

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EDUCATION

- **MILA - Quebec AI Institute & Polytechnique Montréal** Montreal, QC
M.A.Sc Software Engineering *Sep 2024 - May 2026*
 - **Cumulative GPA:** N/A
 - **Principal Investigator:** Marco Bonizzato - Polytechnique Montréal Department of Biomedical Engineering
 - **Research Area:** Hierarchical Gaussian Processes and other ML techniques with applications to Neuroprosthetics
- **McGill University** Montreal, QC
B.Sc. First-Class Honours Computer Science with a Minor in Neuroscience *Sep 2020 - May 2024*
 - **Cumulative GPA:** 3.73 / 4.0
 - **Relevant Coursework:** Honours Thesis in Computer Science; Reinforcement Learning; NLP; Statistics; Artificial Intelligence; Applied Machine Learning; Honours Algorithms & Data Structures; Discrete Math;
 - **Prizes and Awards:** Quebec Excellence Bursary for Computer Science (2021);
- **Upper Canada College** Toronto, ON
International Baccalaureate Diploma & Ontario Secondary School Diploma *Sep 2015 - May 2020*
 - **Grade-Point Average:** 35 / 42 (IB) and 94% (OSSD)
 - **Prizes and Awards:** Lang Scholar Prize for Athletic and Academic Achievement (2020); General Proficiency Award for Academic Standing (2019); Cayley Waterloo Math Contest Certificate of Distinction (2019);

OTHER RESEARCH EXPERIENCE

- **Department of Computer Science** Montreal, QC
McGill University, MILA - Quebec AI Institute *June 2024 - Ongoing*
 - Research collaborator at Professor Golnoosh Farnadi's EQUAL Lab
 - Conducted an empirical, in-depth analysis of Large Language Models (LLMs) and their training dynamics
 - Paper submitted to ICLR 2025 and NeurIPS - SafeGenAI workshop under double blind review
- **Department of Biomedical Engineering** Montreal, QC
McGill University, MILA - Quebec AI Institute *February 2023 - Ongoing*
 - Undergraduate researcher under the supervision of Professor Danilo Bzdok.
 - Using machine learning models to take brain activation (fMRI) and human brains to predict and understand the task the subject was performing
 - Libraries used: NIlearn; Numpy; Pandas; Matplotlib; Scikit learn.
- **Department of Physiology** Montreal, QC
McGill University *June 2022 - February 2023*
 - Working as a summer researcher and research assistant under the supervision of Professor Erik Cook
 - Investigating correlations between visual stimuli and activation in mouse brains using statistical techniques and data processing
 - Z-plane motion correction for two-photon imaging of neural activity in awake behaving mice

RELEVANT EXPERIENCE

- **Mental Health Director** Montreal, QC
McGill Science Undergraduate Society *May 2021 - May 2024*
 - Researching mental health issues, policies, and activities among North American Universities
 - Organizing projects (e.g., mentorship programs) to improve students' mental health at McGill University
- **Technical Skills**
Python; Java; MIPS; Matlab; C; Bash; Git; UNIX; OOP; Sci-Kit Learn; PyTorch; Pandas
- **Concentrations**
Artificial Intelligence; Machine Learning; Applications of ML; Computational Neuroscience; Data Science