

JOSEPH D VIVIANO

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Mila Quebec AI Institute
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EXPERIENCE

Fellow 2021–Now
[PhD to VC, Fifty Years](#)

- Hands on experience with sourcing strong deep-tech companies ready for seed or pre-seed investment, performing due diligence.
- Training on the economics of VC and how to support founders.

Applied Research Scientist 2020–Now
[Mila Technology Transfer, Mila Quebec AI Institute](#)

- Research on medical applications, ethical language models, and biologically-inspired AI.
- Forgery detection project with emphasis on out of distribution generalization.
- Equity momentum trading strategies with [CDPQ](#) (\$365 B under management).

Research Intern 2020
[Google, Smart Ad Relevance System Predicted Click Through Rate Team](#)

- Uncertainty estimation for predicted click through rates (pCTR).

Research Intern 2019–2020
[Mila Quebec AI Institute](#)

- Explainable AI research whether saliency can be relied on to [diagnose generalization failures](#).

Research Intern 2019
[Imagia Cybernetics](#)

- Cancer localization without segmentations, and multimodal classification combining images with clinical notes.

Research Methods Specialist 2014–17
[Kimmel TIGRLab, Centre for Addiction and Mental Health](#)

- Developed two published machine learning tools that identify vulnerable [schizophrenia](#) and [Alzheimer's](#) patients.
- Managed the design & implementation (team of 5) of a [data management platform](#) and [quality assurance tools](#) used by team of 20.

Data Analyst 2013–14
[CANN Lab, York University](#)

- Biomarker of [reduced executive function in aging](#).

Graduate Student 2011–13
[Schneider Lab, York University](#)

- MRI of the [human visual input](#) and [feedback](#) systems.

RESEARCH

Publications: I'm an [active researcher](#) with an h-index of 12.

Precision Medicine: Biomarker development for patient-tailored treatments.

Deep Learning: Representation learning for robust and explainable models, multimodal learning, attention mechanisms.

EDUCATION

MSc. Computer Science, Machine Learning Specialization 2018–20
[Mila, Université de Montréal, Montréal, QC](#)

MSc. Biology, Neuroscience Specialization, With Distinction 2011–13
[York University, Toronto, ON](#)

BSc. Psychology, Hons. 2005–09
[Queen's University, Toronto, ON](#)

TECHNOLOGIES

Python Proficient
Numpy, scipy, pandas, scikit-learn, pytorch, tensorflow.

MATLAB Intermediate
R Intermediate

Unix Administration Intermediate
Webservers, virtualisation, & containerisation.

C Familiar
Java Familiar
SQL Familiar

TEACHING

Introduction to Deep Learning 2019
[McGill BrainHack Summer School & MAIN Conference Workshop](#)

Python for Neuroimaging 2015
[Centre for Addiction and Mental Health](#)

EXTRACURRICULAR

Deep Learning Specialization 2018
[deeplearning.ai, Coursera](#)

Certified System Administrator 2016
[Linux Foundation](#)

High Performance Computing 2014–16
[SciNet, University of Toronto](#)