Jason d'Eon

Halifax, NS • jason.n.deon@gmail.com • Cell: (902)-471-4751

Education		
Dalhousie Univers PhD in Computer S CPGA: 4.30 / 4.30	ity Science	Sept. 2019 – Present
University of Waterloo Master's of Mathematics (Pure Mathematics) CGPA: 92 / 100		Sept. 2018 – Aug. 2019
Saint Mary's University Bachelor of Science in Mathematics (Hons) and Computer Science (Hons) CGPA: 4.29 / 4.30		Sept. 2014 – Apr. 2018
Work Experience		
Saint Mary's University Computer Science Research Assistant with Dr. Pawan Lingras		May 2017 – August 2017
Worked with teCreated Pythor	eams of graduate students on industry-sponsored projects. n libraries for text-similarity and topic clustering of text docu	ments.
Saint Mary's University Computer Science Research Assistant with Dr. Sageev Oore		May 2016 – August 2016
Designed neuraCreated Pythor	I networks for composer classification of MIDI files using the n libraries for low-level handling of MIDI files.	e TensorFlow library.
Saint Mary's University Chemistry Research Assistant with Dr. Christa Brosseau		May 2015 – August 2015
Explored greenTrained on usin	synthesis routes for silver nanoparticles. ng Raman spectrophotometer and FE-SEM.	
Teaching Experienc	e	
Dalhousie Univers Teaching Assistant	ity	Jan 2020 – Present
• Winter 2021:	(CS4155/6505) Machine Learning	
• Winter 2020:	(CS4155/6505) Machine Learning	
University of Waterloo Teaching Assistant		Sept 2018 – Aug 2019
• Spring 2019:	(PMATH347) Groups and Rings	
• Winter 2019:	(MATH135) Algebra for Honours Mathematics	
• Fall 2018:	(MATH109) Mathematics for Accounting	
 Fall 2018: 	(MATH103) Introductory Algebra for Arts and Social Sci	ence

Saint Mary's University

Teaching Assistant

- Spring 2018: (MATH1210) Introductory Calculus I
- Winter 2018: (MATH1216) Introduction to Mathematical Statistics
- Fall 2017: (MATH2305) Survey of Discrete Mathematics

Saint Mary's University

Sept 2017 - Dec 2017; Jan 2016 - Apr 2016

Tutor at Centre for Science Numeracy & Academic Proficiency

• Hired by invitation to tutor first-year students in physics, chemistry, and mathematics

Publications

- Scott C. Lowe, Robert Earle, **Jason d'Eon**, Thomas Trappenberg, Sageev Oore. Logical Activation Functions: Logit-space equivalents of Boolean Operators. *NeurIPS 2022*.
- Greg d'Eon, Jason d'Eon, James R. Wright, and Kevin Leyton-Brown. The Spotlight: A General Method for Discovering Systematic Errors in Deep Learning. *FAccT 2022*.
- Jason d'Eon, Sageev Oore. ABCD: A Bach Chorale Discriminator. NeurIPS 2021 Workshop on Machine Learning for Creativity and Design.
- Liam Hebert, Elizabeth Eddy, Will Harrington, Lauryn Marchand, **Jason d'Eon**, Sageev Oore. ArtBeat: Deep Convolutional Networks for Emotional Inference to Enhance Art with Music. *ICMI 2021*.
- Jason d'Eon, Sri Harsha Dumpala, Chandramouli Shama Sastry, Daniel Oore, Sageev Oore. Musical Speech: A Transformer-based Composition Tool. *NeurIPS 2020 Demonstration Track*.
- Sri Harsha Dumpala, **Jason d'Eon**, Sageev Oore. Sine-Wave Speech as Preprocessing for Downstream Tasks. *FRSM 2020*.

Jason d'Eon and Chrystopher L. Nehaniv. Algebraic Structure of the Varikon Box. AMMCS 2019.

Awards

Scholarships/Grants

- 2022 Vector Institute Student Grant \$6,000
- 2021 Vector Institute Student Grant \$6,000
- 2020 Vector Institute Student Grant \$4,000
- 2018 NSERC CGS-M \$17,500
- 2018 Waterloo President's Graduate Scholarship \$5,000
- 2017 Adam Hogg Memorial Scholarship \$900
- 2017 MT&T Computing Science & Business Administration Scholarship \$1,900
- 2017 NSERC USRA \$7,000
- 2016 NSERC USRA \$7,000
- 2015 Saint Mary's Dean's Award \$7,000

Distinctions

- 2018 Saint Mary's Faculty of Science Gold Medal (Highest CGPA)
- 2015 2018 Saint Mary's Dean's List

Sept 2017 - Jun 2018

Technical Skills/Topics

Programming

- Python
- Java
- C++
- LaTeX
- PowerShell
- Bash
- SSH
- Git
- SQL
- HTML
- CSS
- Javascript

Machine Learning

- PyTorch
- TensorFlow
- Keras
- NumPy
- Scikit-learn
- Pandas
- Seaborn
- Classification/Regression
- Time-series prediction
- Supervised/Unsupervised learning
- Convolutional neural nets
- Recurrent neural nets
- Long-short term memory nets
- Transformer models

Mathematical Background

- Linear algebra
- Calculus
- Statistics
- Probability theory
- Algorithm analysis
- Combinatorics
- Data structures
- Linear programming
- Convex optimization
- Information theory
- Differential equations
- Dynamical systems
- Differential geometry
- Audio processing