George Andrew Jeffreys

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Education

2022 **Boston University, PH.D. in Mathematics**
GPA: 3.90

• Researched mathematical theory of deep learning. Created and ran simulations using novel convolutional neural network techniques in Python using the TensorFlow and Keras packages.

• Applied research towards transfer learning in natural language processing via a variant of the attention mechanism.

• Applied research towards theoretical quantum computing to develop new solution to the 'Measurement Problem.'

• Wrote, edited, and presented peer-review quality papers.

• Taught college level mathematics courses.

2016 **Rutgers University, Bachelor of Art in Mathematics**
GPA: 3.85 - *Magna Cum Laude*

Experience

2022-2023 **Part Time Mathematics Lecturer at Northeastern University**

• Designed course materials for and taught math courses.

2015 **Undergraduate Research at University of Maryland Baltimore County**

• Investigated a particular novel dimension reduction technique for data with many more parameters than observations.

• This project was funded and developed in a joint program with the U.S. Census Bureau.

Publications and Presentations

Apr 2023 *Noncommutative Geometry of Computational Models and Uniformization for Framed Quiver Varieties* (with Siu-Cheong Lau)

Dec 2022 *Quantum Finite Automata and Quiver Algebras* (with Siu-Cheong Lau)

Aug 2022 *Kähler Geometry of Framed Quiver Moduli and Machine Learning* (with Siu-Cheong Lau)

Jul 2022 41st International Conference on Bayesian and Maximum Entropy Methods in Science and Engineering

Jun 2022 BU-Keio-Tsinghua Geometry and Mathematical Physics Workshop

Feb 2022 Boston University Geometry and Physics Seminar