

ETHAN YALE JAFFE

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Flat 38, 1 Dalmeny Avenue, London. N7 0LD

EXPERIENCES

- G-Research**, London, UK 2020-
Quantitative Researcher
Performed research in quantitative finance and algorithmic trading
- Quantlab Financial**, Boston, MA Summer 2019
Quantitative research intern
- Performed exploratory research into improving prediction of price change of US equities
 - Developed theoretical justification for new techniques and tested them on real stock data
- MIT Department of Mathematics**, Cambridge, MA 2015 - 2020
Graduate researcher
- Simplified a celebrated proof by D. Christodoulou on the formation of black holes in the context of the Einstein equations
 - Provided novel insights into the geometry of the black hole

EDUCATION

- Massachusetts Institute of Technology**, Cambridge, MA 2020
PhD in Mathematics, GPA: 5.00/5.00
- Thesis: Asymptotic description of the formation of black holes from short-pulse data
- University of Toronto**, Toronto, Canada 2015
Honours BSc in Mathematics, GPA: 3.98/4.00

LEADERSHIP EXPERIENCES

- MIT Department of Mathematics**, Cambridge, MA Fall 2016 - Present
Teaching Assistant
- Led recitation for 10-25 students in Multivariable Calculus
 - Graded homework and held office hours in Analysis, Statistics, and Nanophotonics
- Research Science Institute**, Cambridge, MA Summer 2016
Mentor
- Mentored an advanced high-school student in an original math research project concerning spectral rigidity
- MITxplore**, Cambridge, MA 2015 - 2016
Mentor
- Worked with a team to develop and teach a curriculum for primary-school students interested in extracurricular mathematics
- University of Toronto Department of Mathematics**, Toronto, Canada 2014 - 2015
Teaching Assistant
- Led tutorials for 20-30 students in single-variable calculus

SELECTED HONORS AND AWARDS

- **NSERC PGS-D Award** (2016) CAD 63000 award to support thesis research over three years
- **NSERC USRA Award** (2014) CAD 8000 award to support a summer research project
- **Norman Stuart Robertson Scholarship in Mathematics** (2013, 2014) CAD 4000 scholarship from the University of Toronto
- **Galois Award in Mathematics** (2012, 2013) CAD 1500 scholarship from the University of Toronto

TECHNICAL SKILLS

Python, Pandas, Mathematica

SELECTED PUBLICATIONS AND PREPRINTS

Asymptotic description of the formation of black holes from short-pulse data (Thesis). <https://arxiv.org/abs/2003.05985>
Pathological phenomena in Denjoy-Carleman classes. *Canad. J. Math.* Vol 68 (1), 2016 pp. 88-108.