


George Mitchell

 : george-mitchell-math

Tel: +1 (914) 522-3589

george-mitchell : 

Email : gmitchell.math@gmail.com

New York, USA

SUMMARY

Highly knowledgeable, skilled and motivated mathematical researcher with a keen interest in quantitative finance. Meticulous in detail and driven to solve dynamic problems with real world applications.

- Strong interest in Finance, Algorithmic Trading and Quantitative Research.
- Exposure to algorithmic trading techniques in Python: pulling market data from APIs, manipulating data using NumPy and Pandas, visualizing data with Matplotlib and Seaborn.
- A strong academic background in Mathematics and Statistics, including awards for highest performing student in the final three years of undergraduate study.

EDUCATION

PhD in Mathematics

Sept 2022

The Graduate Center, City University of New York, New York, NY

Dissertation: *The Local Lifting Problem for Curves with Quaternion Actions*

Integrated MMath (Bachelor's & Master's in Mathematics)

June 2016

Newcastle University, Newcastle Upon Tyne, UK

Thesis: *Galois Groups over the Rational Numbers* Degree Class: First with Honours (4.0 GPA)

Online Courses:

Beginning C++ Programming

Introduction to Financial Engineering and Risk Management

Introduction to Data Science in Python

Udemy

Columbia University

University of Michigan

SKILLS

Python

C++

Stochastic
Calculus

Data Science

Statistics

Probability

RESEARCH EXPERIENCE

Research Intern, Microsoft

May - Sept 2022

- Discovered a new result in elliptic curve cryptography which reduced some required computations by 40%.
- Implemented the algorithmic speed-up in computer algebra software Magma/Maple.

Doctoral Candidate, CUNY

Aug 2016 - Sept 2022

- Discovered and implemented the first ever Hurwitz trees for the group of quaternions.
- Increased the algebraic geometry PhD throughput at CUNY by 10%.

Research

Linear
Algebra

Quantitative
Methods

Algorithmic
Trading

PROGRAMMING EXPERIENCE

Data Science Coach, Modal Learning

Jan 2023 - Present

- Coaching and advising *Python for Data Science* course.

Student Researcher, Newcastle University

June - Sept 2015

- Wrote and tested approximately 30% new code for a GAP (Groups, Algorithms, Programming) package called *AutGrpOfPCG*, and debugged the other 70%.

Machine
Learning

Pandas

NumPy
SciPy

TEACHING EXPERIENCE

Adjunct Lecturer, Hunter College, New York

Aug 2018 - May 2022

- Taught as instructor of record: Calculus I, Calculus II, Elementary Statistics and Probability, College Algebra.
- Maintained overwhelmingly positive teaching evaluations.

Excel

Teaching