





# William Wang

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## Education

**Rutgers University**, School of Arts and Sciences  
*Bachelor of Science, Mathematics + Computer Science*  
Cumulative GPA: **3.88** / 4.0

New Brunswick, NJ

May 2023

### Relevant Coursework

Probability Theory   Theory of Statistics   Numerical Analysis   Combinatorics  
Data Structures   Stochastic Calculus   Intro Math Finance   ODEs/PDEs

### Self Study:

- *A Primer for the Mathematics of Financial Engineering*, D. Stefanica
- Akuna Capital Options 101

## Skills

Java, Python, C, MATLAB, Maple (math software), HTML/CSS,  $\LaTeX$

## Research / Projects

### 3-Dimensional Lattice Paths

*Project Leader*

Nov-Dec 2020

- Conducted research in combinatorics under Professor Doron Zeilberger
- Directed team's research and maintained database containing our discovered integer sequences and their properties/long-term behaviors
- Published new entries to the Online Encyclopedia of Integer Sequences (OEIS) with approval from OEIS editors
- **Key Achievement:** Authored the new integer sequence A339390<sup>↗</sup> and contributed new interpretations to the sequences A2898<sup>↗</sup> and A208425<sup>↗</sup>

### Comparison of Advanced Quadrature Techniques

Mar - Apr 2021

- Learned and applied the advanced quadrature techniques of Gaussian-Legendre quadrature, Romberg's method, and Tanh-Sinh quadrature to estimate areas under various functions with high accuracy
- Compared theoretical convergence rates/error bounds and the computations required to utilize each technique

## Organizations

### Rutgers Quantitative Finance Club (QFC)

*Mathematics Chair*

Fall 2021 -

- Give presentations on core mathematical concepts of quantitative finance, such as probability theory and statistics
- Preside over club-wide decisions and contribute to the mathematics knowledge and resources of the club

### Undergraduate Student Alliance of Computer Scientists (USACS)

*Member*

September 2019 - Present

## Work Experience

### Rutgers University Mathematics Department

*Undergraduate Grader*

Spring 2021 - Present

- Grade student homework assignments and work closely with professor to optimize student learning experience
- Graded for ODEs (Calculus IV) in Spring 2021, Calculus II in Summer 2021