William Wang

Contact Information

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Education

Rutgers University - School of Arts and Sciences — New Brunswick, NJ
Bachelor of Science, Mathematics and Computer Science — Expected Grad. May 2023
Cumulative GPA: **3.83**/4.0

Relevant Coursework

Data Structures	Algorithms	Software Methods	Systems Prog.	Databases
Probability Theory	Statistics Theory	Stochastic Processes	Num. Analysis	ODEs
Intro Data Science	Intro Math Finance	Comp. Architecture	Combinatorics	PDEs

Skills

Programming: Java, Python, C, MATLAB, Maple
Libraries: JavaFX, NumPy, Pandas, Matplotlib, Bootstrap
Others: Git, Android app development, JUnit, HTML/CSS, LaTeX

Work Experience

BNY Mellon - Pershing LLC
Software Engineering Intern — Jun - Aug 2021
- lorem
- ipsum

Rutgers University Mathematics Department
Undergraduate Grader — Spring 2021 - Present
- Grade student assignments and work closely with professor to optimize student learning experience
- Graded for ODEs (Spring 2021), Calculus II (Summer 2021), and Numerical Analysis (Fall 2021)

Research / Projects

3-Dimensional Lattice Paths
Project Leader — Nov - Dec 2020
- Conducted research in combinatorics under Professor Doron Zeilberger
- Reduced time complexity of solving a combinatorics problem from $O(6^n)$ to $O(n)$
- Published new entries to the Online Encyclopedia of Integer Sequences (OEIS) with peer-review and approval from OEIS editors
- **Key Achievement:** Authored the new integer sequence A339390 and contributed new interpretations to the sequences A2898 and A208425

Comparison of Advanced Quadrature Techniques — Mar - Apr 2021
- Learned and applied the advanced quadrature techniques of Gaussian-Legendre quadrature and Romberg's method to estimate areas under various functions with high accuracy
- Compared theoretical convergence rates/error bounds and the time/computational complexity required to utilize each technique

RU Pizzeria — Nov 2021
- Built an Android app in Java allowing users to place, add, and remove pizzas and orders from a hypothetical pizzeria, with minimum SDK Android 7.0
- Developed with a partner in a variety of agile techniques, including pair/extreme programming

Organizations / Extracurricular Activities

Rutgers Quantitative Finance Club
Mathematics Chair — Fall 2021 - Present
- Give presentations on core mathematical concepts of quantitative finance such as probability theory, statistics, and creative approaches to problem solving
- Preside over club-wide decisions and contribute to the mathematics knowledge and resources of the club