Logan Bell

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EDUCATION

Stanford University (Sep. 2020 – Present)
Pursuing B.S. Mathematics

- Relevant Coursework: Graduate Theory of Probability I, Linear Dynamical Systems, Real Analysis, Theory of Partial Differential Equations, Programming Abstractions, Graduate Algebra I

Lakeland Community College (Sep. 2017 – May 2020)
Obtained A.S. and A.A.; Graduated summa cum laude

Lake Erie College (Sep. 2018 - May 2020)
Dual-Enrolled in High School

WORK EXPERIENCE

Stanford Undergraduate Research Institute in Mathematics (Jun. 2021 – Aug. 2021)
Worked as a Student Researcher

- Developed novel mathematical proofs of connection between combinatorics and representation theory in collaboration with three academic colleagues
- Produced a forty-five page survey of existing research and group contributions
- Co-presented findings in fifty-minute presentation to other student researchers and Stanford professors

PROJECTS

Breakthrough Junior Challenge (Jun. 2019)
Placed in Top 20%

- Animated an original explanation of the RSA encryption algorithm using manim, an open-source Python package

Independent Mathematics Research (Apr. 2018 – Jun. 2019)

- Derived an explicit formula for roulette curves and presented an explanation at the 2019 Youngstown Pi Mu Epsilon Conference
- Presented a crash-course on quantum computation and Shor's algorithm for prime factorization at the 2019 Lakeland Math Mini-con
- Discovered an application of series to solve ordinary differential equations; presented method at the 2018 Lakeland Math Mini-con

SKILLS

Mathematics Research

Python

Numerical Optimization

Statistical Models

C++

R

INTERESTS

- Probability Theory
- Data Analysis
- Statistics
- Optimization
- Algorithmic Trading