Nathaniel K. Green

Email: nathaniel.k.green.math@gmail.com   GitHub: nathaniel-k-green
Website: nathaniel-k-green.github.io   LinkedIn: linkedin.com/in/nathaniel-k-green

Education

University of Wisconsin–La Crosse   May 2025
B.S. in Mathematics (Honors) and Computer Science
GPA: 3.83

Mathematics coursework: Abstract Algebra, Real Analysis, Topology, Galois Theory, Functional Analysis, Complex Variables, ODEs, Linear Algebra
Computer Science coursework: Theory of Computation, Machine Learning, Artificial Intelligence

Research Interests

Functional analysis, operator theory, linear algebra, topology, algebraic geometry

Publications

– **Further techniques on a polynomial positivity question of Collins, Dykema, and Torres-Ayala**.
  With Edward D. Kim. *Algebra and Discrete Mathematics*, 2024. PDF

Talks and Posters

– **Poster:** *CDTA Conjecture* – UW-La Crosse Research & Creativity Symposium (2023)

– **Poster:** *Positive Results on an Open Case of a Conjecture Concerning Polynomials and Matrix Operations* – UW-La Crosse Summer Research Symposium (2022)

– **Talk:** *Dean's Distinguished Fellowship Research Presentation* – UW-La Crosse (June 2022)

Honors and Awards

– Undergraduate Research & Creativity Laureate, UW-La Crosse (2025)

– Honors Degree in Mathematics, UW-La Crosse (2025)

– Undergraduate Research Committee Grant (Spring 2023)

– Dean's Distinguished Fellowship (2022)

– Dean's List, multiple semesters (2021–2025)

Academic Service

– Treasurer, Math and Stats Club, UW-La Crosse

– Volunteer peer tutor (informal), UW-La Crosse

Industry Experience

Capital One — Software Engineer   Aug 2025 – Present
Working on cloud infrastructure and internal tools using AWS.
    Capital One — Software Engineer Intern   June 2024 – Aug 2024
Built an automated metadata migration pipeline using AWS Lambda, CloudWatch, S3, and SNS.

Technical Skills

– Languages: Python, Java, C, JavaScript, SQL, HTML/CSS, LaTeX

– Tools: Git, AWS, VSCode, Linux/Unix, Jira

References

Available upon request