

# Nathaniel K. Green

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## Education:

University of Wisconsin - La Crosse

Expected graduation May 2025

B.S. Computer Science and B.S. Mathematics

- Dean's List
  - Dean's Distinguished Fellowship 2022
  - Undergraduate Research and Creativity Committee Grant Recipient Spring 2023
  - 3.81 GPA
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## Relevant Coursework:

- **Previous**
    - **Math:** Calculus I, II, and III, Elementary Statistics, Foundations of Advanced Mathematics, Linear algebra, Graph Theory, Differential Equations
    - **Computer Science:** Software Design I, II, and III, Introduction to Assembler Programming, C Programming and Computer Organization
  - **Before Summer 2024**
    - **Math:** Abstract Algebra, Topology
    - **Computer Science:** Artificial Intelligence, Computer Architecture, Software Design IV, Structures of Compilers
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## Work History:

**UPS, Homlen, Wisconsin**

June 2023 - Current

Pre-loader

- Quickly and efficiently load packages into trucks for drivers

**UW-La Crosse, La Crosse, Wisconsin**

January 2023 - July 2023

Undergraduate Research & Creativity Committee Grant Recipient

- Co-wrote research paper proving specific case of the CDTA conjecture (below)
- Prove a general type of matrix is positive semidefinite using minimum polynomial

**UW-La Crosse, La Crosse, Wisconsin**

May 2022 - September 2022

Dean's Distinguished Fellowship Research Fellow, Linear Algebra (CDTA conjecture)

- Wrote general programs necessary for progressing the problem, for example, program which finds an equation for a polynomial from known points (Python/Sage)
  - Presented at Dean's Distinguished Fellowship meeting and Summer Research Expo
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## Skills:

Proficient: Python, Java, Linux/Unix, C, Sage, Assembly (MIPS), Git, Microsoft Office

Novice: SQL, HTML/CSS, Ruby

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## Publications:

N. K. Green and E. D. Kim. Further techniques on a polynomial positivity question of Collins, Dykema, and Torres-Ayala. *Under review* (2023) [[arxiv.org/abs/2307.06311](https://arxiv.org/abs/2307.06311)]