

# Ty Friedman

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## EDUCATION

**University of Notre Dame** | Notre Dame, IN

*Bachelor of Science*

May 2026

GPA: 3.9

Major: Computer Science | Minor: Engineering Corporate Practice

Relevant Coursework: Data Structures, Algorithms, Operating Systems, Databases, AI, Data Science, Web Development

## SKILLS & INTERESTS

**Programming:** Python, Go, JavaScript, C#, SQL, C, Java, MATLAB

**Frameworks/Tools:** TensorFlow, scikit-learn, Node.js, REST APIs, Docker, MVC, GitHub Actions

**Interests:** Gymnastics, Skiing, Running, Golf, Cooking, Hiking

## EXPERIENCE

**Volexity** | Silver Spring, MD

May 2025 – August 2025

*Software Engineering Intern*

- Designed and implemented a tool in Go for a proprietary memory forensics product to enable verification of executable files on Windows file systems by extracting code signatures and X.509 certificates, collecting signature/certificate metadata, and validating digital signatures.
- Developed new features for production software in Go and Python in support of Fortune 500 customer requirements while participating in the full agile software development lifecycle.
- Contributed to backend services by developing database consistency enforcement mechanisms, checksum computation and validation checks, and improvements to command line tools.
- Used proprietary and open-source tools to perform memory forensics on AWS EC2 instances, and laptops.

**Swedemom Center of Giving** | McMinnville, OR

May 2024 – April 2025

*Full-Stack Software Engineering Intern*

- Utilized ASP.NET Core, JavaScript, HTML, and CSS to develop intuitive front-end applications that streamlined business operations, which allowed less-experienced employees to perform tasks traditionally handled by skilled staff.
- Implemented internal tools with C#, SQL, and OpenAI Assistant APIs to automate routine intake tasks such as title and description generation that increased efficiency of donation intake by 200%.
- Designed and established quicker methods of revising posted items for increased SEO that led to an increase in July sales to holiday season levels and greatly increased site traffic.
- Revamped, implemented, and tested new methods of estimating optimized pricing for products to be sold on eBay to increase accuracy and quality of posted items and speed up automated revision of old item posts.

**First-Year Engineering Program** | Notre Dame, IN

August 2023 – Present

*Engineering Computing TA*

- Collaborated with a group of 24 other TAs to instruct and assist first-year engineering students in Engineering Computing and Design classes to assist in lectures, hold office hours, and provide mentorship throughout the year.
- Enhanced and streamlined the grading process by developing automated programs in MATLAB Grader.

## LEADERSHIP AND ORGANIZATIONS

**Data Club of Notre Dame** | Notre Dame, IN

January 2024 – Present

*President*

- Lead a team of 6 board members to manage 300 members and 10 projects with industry partners.
- Used web scraping, data collection from API endpoints, data parsing, and data analysis to develop social media recommendations to increase engagement on the Cleveland Guardians social media.

**CS4Good** | Notre Dame, IN

August 2024 – Present

*Director of Projects*

- Coordinated initiatives with 6 non-profit organizations in the South Bend community and 50+ project leads and members, aligning efforts across the South Bend community to deliver impactful service projects.
- Led a team of 5 in working with local non-profit, Unity Gardens, to implement a data entry and backend storage of volunteer data, event data, and information to be used in grant applications.