

Hailey A. Reed

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Education

University of Connecticut

Bachelor of Science in Computer Science, Concentration in Computational Data Analytics.
Minor in Mathematics. GPA: 3.6.

Honors Program, STEM Scholar, Academic Scholarship.

Relevant Coursework: Graduate-Level Machine Learning, Data Science, Artificial Intelligence, Principles of Databases, Functional Programming Fundamentals, Technical Writing in Mathematics (LaTeX), Algorithms and Complexity.

Storrs, CT

May 2026

Research Experience

Undergraduate Research Assistant

Advisor: Dr. Qian Yang

Project: *Improving Image Segmentation using Few-Shot Learning*

Storrs, CT

January 2025 – Present

- Developing and refining image segmentation models using few-shot learning techniques in PyTorch.
- Analyzing structural changes in carbon nanotubes for material science applications.

Technical Skills

- **Programming:** Python, C, C++, Java, SQL, Haskell, HTML, Kotlin.
- **AI/ML:** Generative AI, Stable Diffusion, PyTorch, TensorFlow, OpenCV, Scikit-Learn.
- **Libraries & Tools:** NumPy, Pandas, Matplotlib, NetworkX, LaTeX (Overleaf), GIT (version control).

Projects

Artificial Intelligence Honors Project

September 2024

- Developed a Python visualization tool for analyzing five different search algorithms on real-world geographic data.

Algorithms and Complexity Honors Project

March 2024

- Designed an interactive graph traversal tool using Python, Matplotlib, and NetworkX to determine the shortest path in unweighted graphs.

Work Experience

BEACH (Belonging, Engagement, Affinity Computer Hangout) Lifeguard

August 2024 - Present

UConn School of Computing, Storrs, CT

- Tutoring undergraduate students in computer science courses and organizing faculty-student engagement events.

Student Administrative Assistant

January - May 2024

UConn Engineering Experiential Education Office, Storrs, CT

- Designed social media content using Canva, tracking engagement through Meta analytics.
- Planned and facilitated engineering events, utilizing OneNote and Excel for organization.

Achievements

- Alpha Lambda Delta Honors Society 2023 – Present
- National Society of Collegiate Scholars 2023 – Present
- STAG Hack (Fairfield University Hackathon – Winner) 2021

Clubs & Activities

- Women in Math, Science, and Engineering (WiSME) – Member 2022 – Present
- UConn STEM Scholar Community – Honors Program – Member 2022 – Present

Volunteer Experience

Peer Tutor

The Academy of Our Lady of Mercy Luralton Hall, Milford, CT

2020 – 2022

- Provided tutoring in Honors Physics, assisting students in improving assessment scores.