

# Alice Wanner

aliceswan@gmail.com | alicewanner.github.io

## Education

University of Michigan | *PhD in Computer Science & Engineering* | Aug. 2025 - Present

- Advisor Professor Jenna Wiens; research in Machine Learning for Healthcare

University of Virginia | *B.A. in Computer Science & Mathematics* | Aug. 2021 - May 2025

- Honors College: Echols Scholar, admitted to UVA's top 5% of students
- GPA: 3.953/4.0, Graduated with High Distinction

## Research Experience

Computer Science Education Research | *University of Virginia* | March 2022 - Oct. 2024

- Studied gender differences in help-seeking and engagement in introductory CS courses under Profs. Raymond Pettit and John R. Hott
- Designed and conducted analyses, co-authoring papers at ITiCSE 2023 and FIE 2024
- Presented findings at ITiCSE 2023 and CERD Seminar Series, UC Davis, supported by \$3,000+ in UVA grants

Environmental Science Research | *University of Virginia* | April 2023 - May 2025

- Modeled Arctic vegetation dynamics and assessed the impact of reindeer grazing in Prof. Howard Epstein's lab
- Enhanced the ArcVeg MATLAB model, performed data analysis and parameter calibration, and developed visualizations
- Authored senior thesis; won second place in EnviroDay Poster Competition

Cryptography Research | *University of Virginia* | Aug. - Dec. in 2023 & 2024

- Conducted independent research on Kolmogorov Complexity and one-way functions under Prof. Wei-Kai Lin, exploring applications in compression and ML
- Served as sub-reviewer for Eurocrypt 2024

## Work Experience

Teaching Assistant | *University of Virginia* | Feb. 2022 - May 2025

- Introductory Programming (Feb. 2022 – May 2025): Head TA (May 2023 – Dec. 2024); managed and trained 50+ TAs, led labs and office hours, and developed assignments
- Algorithms (Jan.–May 2024): Supported students during office hours and taught graph algorithms, network flow, and introductory machine learning
- Theory of Computation (Jan.–May 2025): Guided students in office hours on core computational theory concepts and delivered a guest lecture on Kolmogorov Complexity

Network Engineering Intern | *Verizon* | June - Aug. in 2023 & 2024

- Developed Slack app for service health monitoring (2024) and automated reporting tool (2023) on the ASP Team under Justin Magyar
- Built full-stack applications using Flask, Slack API, and PostgreSQL

Mathnasium | *Burke, Virginia* | July 2019 - Feb. 2022

- Lead Instructor, taught K–12 math, managed learning centers, and trained instructors

## Publications

- “Office Hours and Online Forum Engagement in Introductory CS Courses,” *2024 IEEE Frontiers in Education Conference (FIE)*, 2024.
- “Project-Based and Assignment-Based Courses: A Study of Piazza Engagement and Gender in Online Courses,” *ITiCSE 2023 Proceedings*, 2023.

## Honors

- Weinberg Graduate Fellow, *University of Michigan*, Aug. 2025
- Louis T. Rader Undergraduate Teaching Award, *University of Virginia*, May 2025

## Technical Skills

- Python, Java, C, HTML, CSS, SQL, Assembly, Flask, MATLAB, R, ArcGIS, scikit-learn

## Languages

- English - Fluent, German - Fluent