

# Meredith Hu

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GitHub: [github.com/meredithmhu](https://github.com/meredithmhu)

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Junior software engineer with strong systems fundamentals and tooling experience.

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## Education

**Cornell University**, Ithaca, NY

May 2024

Bachelor of Arts Double Major: Computer Science and Classics

**Relevant Courses:** Data Structures, Algorithms, Computer System Organization, Functional Programming, Formal Verification, Programming Language Theory, OS, AI, Linear Algebra, Probability, Discrete Math

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## Work Experience

**Capra CS Lab**, Ithaca, NY – Undergraduate Research Assistant

May 2022 - May 2024

- Built Python tooling to automate benchmark execution, collect performance metrics, and compute statistical summaries, reducing manual testing overhead and simplifying experimental workflows.
- Authored and maintained low-level benchmarks in a custom research language to validate compiler and runtime features.
- Modeled and solved algorithmic constraints using Python and the Z3 SMT solver to verify correctness properties.
- Wrote technical documentation for compiler setup and benchmark development to support new contributors.

**Competitive Edge Tutoring** – Test Prep & Coursework Tutor

Sept 2025 – Present

- Introduce abstract concepts by grounding them in familiar examples that help students build intuition rather than rely on rote procedures.
- Communicate professionally with supervisors and families, responding quickly to feedback, scheduling changes, and clarifying questions.
- Rapidly learn new subject matter and deliver instruction with minimal turnaround, adapting explanations in real time based on student understanding.

**Wyzant**, Remote – Computer Science Tutor

Jan 2025 – Present

- Support undergraduate and graduate students in algorithms, circuits, computer organization, operating systems, and data structures
  - Guided a University of Toronto student through a computer organization course involving circuit and datapath design (Logisim), resulting in an A after her two prior unsuccessful attempts
  - Maintain a 100% 5-star review rate by adapting support to client needs, including clarifying problem specifications and responding flexibly to client requests
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## Projects

**FAT File System Implementation** - Systems Project (C)

Apr 2024 – May 2024

- Re-implemented and analyzed core components of a FAT-style filesystem in C, including block allocation, directory traversal, and file I/O, to deepen systems-level understanding.
- Debugged low-level file system behavior using Valgrind and gdb to investigate memory safety issues and correctness edge cases.
- Gained hands-on experience reasoning about file system invariants and understanding FAT data structures.

**My Website** (GitHub Pages) [meredithmhu.github.io](https://meredithmhu.github.io)

Oct 2018 – Present

- Designed and built a static personal website using Jekyll and HTML/CSS to explore web fundamentals, content organization, and deployment.
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## Skills

**Languages:** Python, Java, C, OCaml

**Tools:** Git, Bash, Make, VS Code, Jekyll, HTML, CSS, GitHub Pages