

Yining Shi

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<https://eddshi.xyz/>

Education

University of Michigan

Bachelor of Science in Computer Science

Ann Arbor, MI

Aug. 2022 – Current

Research Experiences

CSE DEPARTMENT AT UNIVERSITY OF MICHIGAN

Research Assistant

Ann Arbor, MI

Jan. 2024 – Current

- Collaborating with Patrick Tser Jern Kon and Wyatt Ashley on a novel circumvention strategy, *Nexus*: utilizing packet-fragmenting algorithms against on-path attacks and billions of IoT networks to disrupt traffic surveillance from nation-state censors.
- [Poster](#) was granted the Blue Ribbon Award at the UROP Symposium of University of Michigan.

CENSORED PLANET LAB AT UNIVERSITY OF MICHIGAN

Research Assistant & Full-stack Developer

Ann Arbor, MI

Jun. 2023 – Aug. 2023

- Worked under Professor Roya Ensafi in data collection and analysis on a research project focusing on advanced circumvention tools to counter regional censorship devices and geo-blocking against foreign network traffic.
- Worked as a full-stack developer for the lab's [official website](#), optimizing the data fetching mechanism to enhance server efficiency and reduce costs.

CIVIL ENGINEERING DEPARTMENT AT UNIVERSITY OF MICHIGAN

Research Assistant & Developer

Ann Arbor, MI

Oct. 2023 – Dec. 2023

- Collaborated with Dr. Wentao Wang to engineer a cost-effective IoT sensor-node solution using Microchip Curiosity Nano, targeting confined spaces with a sustained 100KHz transmission rate.
- Developed a comprehensive C-language system from scratch on Microchip Curiosity Nano for sensor data transmission, storage, and uploading via LTE, emphasizing cost efficiency.

Technical Skills

- **Languages:** Python, SQL, C++, C, HTML, CSS, Ruby, R, Javascript
- **Framework:** Flask, Node.js, Ruby on Rails
- **Development Tools:** VS Code, Docker, Git, MPLab, WireShark, WireGuard, Kali
- **Library:** Pandas, Matplotlib