Yining Shi

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https://eddshi.xyz/

Education

University of Michigan — **Ann Arbor, MI**
Bachelor of Science in Computer Science — Aug. 2022 – Current

Honors & Awards

University of Michigan UROP Blue Ribbon Award — **Ann Arbor, MI**
Apr. 2024

University of Michigan University Honors — **Ann Arbor, MI**
2022 - 2024

Academic Presentations

University of Michigan UROP Symposium — **Ann Arbor, MI**

- **Shi, Y.**, Ashley, W., & Kon, P. *Unveiling the Nexus: Harnessing IoT Ecosystems for Evading Internet Censorship* [Poster]. University of Michigan UROP Spring Symposium, Ann Arbor, MI, United States, 2024. https://eddshi.xyz/papers/nexus_poster.pdf

Research Experiences

Computer Science and Engineering Department at the University of Michigan — **Ann Arbor, MI**
Research Assistant, advised by Professor Ang Chen — Jan. 2024 – Current

- Collaborating with Patrick Tser Jern Kon and Wyatt Ashley, advised by Prof. Ang Chen, on a novel circumvention model, *Nexus*, utilizing distributed Internet of Things network systems against on-path attacks, circumvent censorship, and disrupt traffic surveillance from nation-state censors.
- Poster was granted the Blue Ribbon Award at the UROP Symposium at the University of Michigan.

Censored Planet at the University of Michigan — **Ann Arbor, MI**
Research Assistant, advised by Professor Roya Ensafi — Jun. 2023 – Aug. 2023

- Worked under Professor Roya Ensafi and PhD student Anna Ablove regarding data collection and analysis on a research project investigating the ongoing global phenomenon of Geo-blocking against foreign Internet 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 and Environmental Department at the University of Michigan **Ann Arbor, MI**
Research Assistant & Developer, advised by Dr. Wentao Wang 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, Golang
- **Framework**: Flask, Node.js, Ruby on Rails
- **Development Tools**: VS Code, Docker, Git, MPLab, WireShark, WireGuard, Kali
- **Library**: Pandas, Matplotlib, scikit-learn