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 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]. (**Blue Ribbon Best Posters Award**)
  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,
University of Michigan, Ann Arbor, MI
Research Assistant, advised by Professor Ang Chen — Jan. 2024 – Current

- Collaborating with Patrick Tser Jern Kon, Wyatt Ashley, and Prof. Chen on a novel circumvention model, *Nexus*, utilizing distributed Internet of Things network systems against on-path attacks, circumvent censorship, and traffic surveillance from nation-state adversaries.
- Poster awarded Blue Ribbon at the UROP Symposium, University of Michigan.
- Aiming to publish at **PETS/PoPETs 2026**.

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

- Conducted research under Professor Roya Ensafi and PhD student Anna Ablove on Internet Measurement data collection and analyses for a project concerning the growing trend of Geo-blocking ingress traffic from outside networks by both heavily censored and traditionally "free" nation-states.
- Developed the lab's official website and optimized the data fetching mechanism to improve server efficiency and cut costs.

Civil and Environmental Engineering Department,
University of Michigan, Ann Arbor, MI
Research Assistant & Developer, advised by Dr. Wentao Wang — Oct. 2023 – Dec. 2023

- Engineered an IoT sensor-node solution using Microchip Curiosity Nano for confined spaces, achieving a 100KHz transmission rate.
- Developed firmware in C for sensor data transmission, storage, and LTE-based uploading, with a focus on cost efficiency.

Technical Skills

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