Tara Dixit

571-599-1415 | tdixit@stanford.edu | https://www.linkedin.com/in/taradixit/

OBJECTIVE

Computer science student focused on security engineering and control automation, with experience building and validating real-world security controls. Contributed to a large-scale study of enterprise security guidance across 40+ countries and co-authored data privacy research published by MIT.

EDUCATION

Stanford University, *B.S. in Computer Science, AI Track* *Graduation Date – 6/2027*

TECHNICAL SKILLS

Programming: Python, C, C++, Assembly
Security: Identity and access controls (M365/Entra ID), log analysis, policy auditing, basic x86 concepts
Cloud: AWS Certified Cloud Practitioner [In progress]

EXPERIENCE

CURIS Fellow ***Stanford University | Jun 2025 – Present***

- Investigated the usefulness of security threat reports for organizations, focusing on how critical threats can be prioritized.
- Analyzed attacker behaviors and system breaches to develop insights that strengthen security posture and inform resource allocation.

Research Assistant — Empirical Security Research Group ***Stanford University | Jan 2025 – Jun 2025***

- Contributed to one of the first systematic analyses of enterprise cybersecurity guidance across 41 countries.
- Designed a tree-based taxonomy and leveraged LLMs to compare best-practice recommendations across countries.
- Findings highlighted significant inconsistencies that could lead to false confidence, uneven enforcement, and configuration gaps.

Research Assistant — Trustworthy AI Research Lab ***Stanford University | Jan 2025 – Jun 2025***

- Built analysis pipelines to evaluate 1,000 academic peer reviews using Python, LLMs, and existing NLP tools to find patterns in quality, bias, and risk signals.

SELF-GUIDED PROJECT

Automated CVE Triage ***Present***

- Fine-tuned Phi 3.5 (3.8B) with LoRA on 55K+ NVD CVEs to predict CVSS scores, vectors, CWE, and severity from raw descriptions, addressing NIST's recent publicly acknowledged backlog.
- Compared against TF-IDF baselines (Logistic Regression, Random Forest) and smaller models, identifying mode collapse and overfitting.

Compliance Reality Checker ***2025 – Present***

- Built scripts for Linux and Microsoft 365 to test whether systems that appear compliant (MFA enabled, firewall present, password expiry set) are actually enforcing those controls in practice.
- Showed how surface-level compliance checks can miss per-user overrides, disabled or report-only policies, legacy authentication, or services that are installed but not running.
- Designed stronger checks that combine configuration state, per-account settings, and runtime signals.

LEADERSHIP & ACTIVITIES

President, Women in Applied Cyber Club ***Stanford University | Sep 2025 – Present***

- Led workshops focused on real-world security challenges and coordinated with industry professionals to expose club members to infrastructure and operational security perspectives.

PUBLICATIONS

- Privacy and Paternalism: The Ethics of Student Data Collection, MIT Schwarzman College of Computing [Aug 26, 2022]
- Investigating Usefulness of Security Threat Reports, USENIX Security '26 [Awaiting peer-review]