Yousef AbuHashem

(+1) 650-374-9255 | yousef24@stanford.edu | linkedin.com/in/yousef25

Education

Stanford University — Stanford, CA
Master of Science in Computer Science, Computer and Network Security Track — *Sep. 2025 – June 2026*

Stanford University — Stanford, CA
Bachelor of Science in Computer Science, Systems Track — *Sep. 2021 – June 2025*

- Relevant Courses:
  Computer Networking (CS 144); The Modern Internet (CS 249i); Introduction to Cryptography (CS 255); Operating Systems Kernel Implementation (CS 112/140); Compilers (CS 143); Parallel Computing (CS 149); Decision Making Under Uncertainty (CS 238); Intro to Human-Computer Interaction (CS 147)

Experience

Design Verification Engineering Intern — June 2025 – September 2025
Apple — *Cupertino, CA*

- Worked with the Memory Cache Complex team to model and validate transaction flows between Apple's SoC interconnect fabric and the DRAM controller, leading to the discovery of RTL and microarchitectural bugs.
- Built an AI-powered debugging framework using a multi-agent system to parse run logs, track addresses, analyze signals, and cross-reference codebases, accelerating root-cause analysis.

Software Engineering Intern — June 2024 – September 2024
Arista Networks — *Santa Clara, CA*

- Worked with the layer 1 team governing operational flow in high performance network switches.
- Developed an API watchdog mechanism ensuring the health of different agents hooked to Arista switches.

Undergraduate Research Assistant — March 2023 – June 2024
Stanford Empirical Security Group — *Stanford, CA*

- Developed classifiers with Prof. Zakir Durumeric and Dr. Deepak Kumar to classify toxic content for combating online harassment.
- Collected and analyzed 100,000 Reddit comments to evaluate various LLMs' decisions. Applied NLP techniques to create an accurate hate speech identification model for safer digital environments.

Teaching Assistant (CS 47) — Jan. 2023 – Jan. 2024
Stanford Human-Computer Interaction Group — *Stanford, CA*

- Teaching a class of 80 Stanford students fundamentals of cross-platform mobile development using the React Native framework (RN).
- Developed curriculum and logistic tools like automatic grading to help sustain the class and ease its instruction.

Publications

Watch Your Language: Large Language Models and Content Moderation
Deepak Kumar, Yousef AbuHashem, and Zakir Durumeric
International AAAI Conference on Web and Social Media (ICWSM), June 2024

Projects

Transfer Control Protocol (TCP)

- designed a fully functional network TCP ensuring idempotence and secure in-order packet sending and delivery which I managed to connect to a relay server on the internet and communicate with other devices worldwide.

Heap Allocator

- Built my own version of the malloc, realloc, and free functions in C as a part of my explicit heap allocator project for my computer systems and organization class during which I focused on optimizing for memory use and throughput.

Virtual Class Assistant

- Created an assistant for students to be able to get high quality answers for almost 60% of their React Native/Assignment questions, leveraging LLMs and the knowledge we've got from class forums archives.
- Building an interface between Edstem and ChatGPT, and embedding that interface into VScode.