

MOHAMED MOUSTAFA DAWOUD

PhD Student, Computer Science & Engineering
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EDUCATION

University of California, Santa Cruz 2025 – present

Ph.D. in Computer Science & Engineering

Advised by Prof. Ram Sundara Raman and Prof. Leilani Gilpin (co-advisors).

University of California, Santa Cruz 2025 – 2026

M.S. in Computer Science & Engineering

Thesis committee: Prof. Ram Sundara Raman, Prof. Álvaro Cárdenas, Prof. David T. Lee, and Dr. Alejandro Cuevas.

German International University, Cairo, Egypt 2021 – 2024

B.Sc. in Informatics & Computer Science

Full merit scholarship (top-ranked national students).

WORK EXPERIENCE

California Privacy Protection Agency (CPPA) via University Enterprises, Inc. (UEI)

Jun 2026 – present

Research Technologist Intern

- Research Technologist in the Audits Division, reporting to Chief Privacy Auditor Sabrina Ross and Dr. Christina Yeung at the California Privacy Protection Agency—the first U.S. government agency established solely to implement and enforce data privacy law.
- Work at the intersection of AI privacy, technology policy, and auditing: support the Agency's audits of businesses' data-handling, security, and consumer-privacy practices and assess compliance with the California Consumer Privacy Act (CCPA).
- Help evaluate privacy and governance risks in automated decision-making and emerging AI systems to inform the Agency's enforcement and policy priorities.

University of California, Santa Cruz

Jun 2025 – Jun 2026, Sep 2026 – present

Graduate Student Researcher

Mohamed bin Zayed University of Artificial Intelligence

Sep – Dec 2024

Research Associate

- Conducted research on combating deepfakes and promoting the responsible use of AI through a human-centered lens.

Georgia Institute of Technology

Oct 2023 – Feb 2024

Research Intern

- Conducted systems and network security research on Android malware analysis under Prof. Brendan D. Saltaformaggio.

- Contributed to **DVa** (USENIX Security 2024), which extracts targeted victims and abuse vectors from Android accessibility malware through dynamic, victim-guided execution and abuse-vector-guided symbolic analysis.
- Led (first author) a separate study on using large language models to assist static analysis of Android malware: designed and executed a large-scale experiment on a manually curated dataset of benign and malicious Android code collected in the wild, demonstrating strong LLM capabilities for reasoning about malicious behaviors and summarizing complex code patterns.

University of South Florida

Jan – Aug 2023

Undergraduate Research Assistant (Remote)

- Worked with Prof. C. Jordan Howell on cybercrime and underground economies, with a focus on Ransomware-as-a-Service (RaaS) marketplaces.
- Led the threat-intelligence component of the project, including data collection and analysis of darknet RaaS vendor advertisements.
- Contributed to the analysis that uncovered core communication patterns (e.g., victimization, persuasion strategies) used to market pre-built ransomware offerings.
- This work appeared later as a peer-reviewed publication in *Computers in Human Behavior*.

German University in Cairo

Sep 2021 – Jan 2023

Information Security Research Intern

- Applied security research with Prof. Wassim Alexan on cryptography and IoT/IoMT security. Published multiple papers on image encryption and secure medical data transmission.

PUBLICATIONS

PrivAudit: A Dual-Lens Auditing Framework for Website Privacy Practices under the CCPA, *33rd ACM SIGSAC Conference on Computer and Communications Security (CCS)* 2026

Mohamed Moustafa Dawoud, Riya Aggarwal, Likith Rahul Krishnamurthy, and Ram Sundara Raman. · To appear

From Underground to Mainstream Marketplaces: Measuring AI-Enabled NSFW Deep-fakes on Fiverr, *Symposium on Usable Security and Privacy (USEC)*, co-located with *NDSS* 2026

Mohamed Moustafa Dawoud, Alejandro Cuevas, and Ram Sundara Raman. · [\[Video\]](#)

Vendor communication themes in darknet Ransomware-as-a-Service (RaaS) advertisements, *Computers in Human Behavior* 2025

Taylor Fisher, Zacharias Pieri, C. Jordan Howell, Roberta O'Malley, Lauren Tremblay, and Mohamed Dawoud.

DVa: Extracting Victims and Abuse Vectors from Android Accessibility Malware, *33rd USENIX Security Symposium (USENIX Security 24)* 2024

Haichuan Xu, Mingxuan Yao, Runze Zhang, Mohamed Moustafa Dawoud, Jeman Park, and Brendan Saltaformaggio.

Social Engineering and Technical Security Fusion, *International Telecommunications Conference (ITC-Egypt)* 2022

Wassim Alexan, Eyad Mamdouh, Mohamed ElBeltagy, Ahmed Ashraf, Mohamed Moustafa, and Hashem Al-Qurashi.

Image Encryption Through Rössler System, PRNG S-Box and Recamán's Sequence, IEEE 12th Annual Computing and Communication Workshop and Conference (CCWC) 2022

Mohamed ElBeltagy, Wassim Alexan, Abdelrahman Elkhamry, **Mohamed Moustafa**, and Hisham H. Hussein.

IoMT Security: SHA3-512, AES-256, RSA and LSB Steganography, 8th NAFOSTED Conference on Information and Computer Science (NICS) 2021

Wassim Alexan, Ahmed Ashraf, Eyad Mamdouh, Sarah Mohamed, and **Mohamed Moustafa**.

TALKS & PRESENTATIONS

From Underground to Mainstream Marketplaces: Measuring AI-Enabled NSFW Deep-fakes on Fiverr Feb

2026

USEC 2026, co-located with NDSS · San Diego, CA · [\[Video\]](#)

TEACHING EXPERIENCE

University of California, Santa Cruz

Mar – Jun 2026

Graduate Teaching Assistant — CSE 115C: Software Design Project II

- Teaching Assistant for CSE 115C: Software Design Project II, a capstone software engineering course at UCSC.
- Support student teams through the design and implementation phases of their capstone projects; guide weekly check-ins, code reviews, and design feedback.

Dartmouth College

Jan – Jun 2025

Lead Graduate Teaching Assistant — COSC 55: Security & Privacy

- Served as Lead Graduate Teaching Assistant for COSC 55: Security & Privacy (Prof. Sami Saydjari), supporting a class of 28 students in an advanced undergraduate course on computer and network security.
- Designed and implemented a new AI-integrated teaching model that embraced tools such as ChatGPT and GitHub Copilot to foster critical thinking, explanation, and reflection rather than rote code production.
- Created a new series of labs emphasizing system design freedom, oral reasoning, and justification of design choices; guided weekly one-on-one and team check-ins to assess conceptual understanding.
- Conducted all grading, oral evaluations, and rubric design; emphasized rigorous yet supportive assessment through structured oral defenses.
- Mentored students on trade-offs in assurance, usability, and privacy engineering—culminating in innovative final projects (e.g., a privacy-preserving, role-based messaging system with blind signature tokens).
- Collaborated closely with the course instructor to co-develop teaching materials, improve pedagogical alignment, and evaluate how AI tools reshape student learning in computer security.

SOFTWARE & OPEN-SOURCE

PaperClerk.ai

2026

Open-source, privacy-preserving research-paper triage tool that runs entirely on-device using local LLMs to keep user data private. Python, Apache-2.0.

PrivAudit

2026

Open-source dual-lens auditing framework that combines LLM-based analysis of privacy-policy disclosures with browser-based measurement of cookie tracking to audit website compliance with the CCPA at scale.

HONORS & AWARDS

AAAS CASE Workshop Delegate — Dartmouth College 2025

Selected as one of four graduate students to represent Dartmouth College at the AAAS *Catalyzing Advocacy in Science and Engineering* (CASE) Workshop; engaged with federal policymakers on science, technology, and public policy. Washington, D.C.

Full Merit Scholarship — German International University 2021

Awarded a full merit scholarship reserved for top-ranked national students.

18th Nationwide — Thanawya Amma (High School) Mathematics 2021

Ranked 18th nationally in Mathematics among ~600,000 students; 408/410 (99.51%).

PEER REVIEW

Sub-reviewer — ACM Internet Measurement Conference (IMC) 2026

Sub-reviewed three submissions at the invitation of a program committee member.

SERVICE & OUTREACH

Co-founder & Lead Maintainer, Egyptians in CS Research 2026

Community directory of 262 Egyptian computer science researchers across 16 research tracks worldwide. Expanded scope from AI to all of CS (security, systems, theory, HCI, and more) in collaboration with the original creator Badr AlKhamissi.

Dartmouth Guarini School Student Spotlight 2025

Featured by Dartmouth's Guarini School of Graduate and Advanced Studies, discussing research in human-centered security and privacy, the journey from Zefta, Egypt to Dartmouth, and advocacy for international students in STEM policy.

Conference Volunteer 2023

IEEE Secure Development Conference (IEEE SecDev 2023), Atlanta, GA. Supported session logistics and attendee coordination.

PhD Application Mentorship Ongoing

Mentor a select cohort of prospective PhD applicants in Computer Science and related fields each application cycle, inspired by the guidance received during my own application journey. Provide personalized feedback on application materials (statements of purpose, research statements, CVs), help define research focus and target programs, and advise on overall application strategy and preparation.