

# Alexis Obeng

Security Researcher | Threat Simulation & Incident Response

[heilancoos.github.io](https://heilancoos.github.io) | [linkedin.com/in/alexis-o](https://linkedin.com/in/alexis-o)

## EXPERIENCE

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- Security Consultant Intern, X-Force Cyber Range — IBM** May 2025 – Aug. 2025
- Built a real-time AI deepfake pipeline with webcam animation, audio cloning, and low-latency ZMQ streaming; integrated into Microsoft Teams calls and achieved a 96% gross margin.
  - Developed a red team ransomware scenario exploiting AWS KMS functionality using the Python Boto3 SDK to simulate cloud-native encryption abuse.
  - Participated in cyber wargame bootcamps using SIEM tools like Splunk, CrowdStrike, and QRadar to investigate advanced simulated incidents, reconstruct attack timelines, and present findings.
  - Delivered a high-level executive briefing summarizing technical project details and business impact in clear, accessible terms.
- Lead Security Researcher — UTSA IOT Security Lab** Aug. 2023 – Aug. 2025
- Recruited the largest number of undergraduate students into the lab, giving them beneficial opportunities such as traveling, internships, and professional development.
  - Spearheaded the design and implementation of an internal virtualized network tailored to the unique needs of the lab.
  - Actively participated in the design and execution of purple-team exercises, showcasing the practical applications of various security concepts in simulated environments to undergraduates of varying skill levels.
  - Led two academic research teams with the aims of publication.
- Cybersecurity R&D Intern — Sandia National Laboratories** May 2024 – Aug. 2024
- Integrated existing open-source operational technology simulation software with Sandia's ICS simulation tool, SCEPTRE, allowing for the public release of an open-source demo.
  - Contributed to the development of an automated forensic artifact collection, processing, and viewing application designed to secure endpoints across a network utilizing tools such as Python, Kubernetes, and Docker.
  - Developed reusable, sandboxed environments for running various post-processing scripts and executables.
- Security Engineer Intern — Booz Allen Hamilton** Jun. 2023 – Aug. 2023
- Worked in a hybrid team environment to design and develop a virtualization solution to create infrastructure for the purposes of utilizing tools such as Ansible, Python, and Terraform.
  - Successfully and efficiently delivered a technical presentation in front of full-time team leads.

## EDUCATION

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- University of Texas at San Antonio** Aug. 2023 - May 2026
- BS Computer Science, GPA: 3.6* San Antonio, TX

## CERTIFICATIONS

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- CompTIA Security+ Certification** Expires Jan. 2028
- CompTIA Cyber Security Analyst (CySA)+ Certification** Expires Jan. 2028

## PROJECTS AND RESEARCH

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- Weaponizing Reality: The Evolution of Deepfakes** Jul. 2025
- Authored an article published on IBM's Security Blog analyzing the evolution of deepfake technology, its real-world abuse cases, and emerging implications for social engineering, fraud, and threat detection.
  - Link: <https://www.ibm.com/think/x-force/weaponizing-reality-evolution-deepfake-technology>
- Cybersecurity Education Gamification Research** Jan. 2025 – Present
- Orchestrated a collegiate-level competition to quantifiably evaluate the impact of competitions on students' career readiness.
  - Designed a vulnerable network consisting of Windows and Linux machines, showcasing various attack paths including ADCS, Kerberoasting, Eternal Blue, SQL Injection, and more.
- Cloud Deployment and Management Tool** Feb. 2024
- Python GUI tool leveraging the Google Cloud API, allows for the automatic deployment and management of training environments across various domains.

## ACHIEVEMENTS AND ACTIVITIES

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| <b>UTSA RowdyCon: Panel Speaker</b>  | 2024      |
| <b>Google's Init.g (Vegas): 2nd Place Winner</b>   | 2024      |
| <b>Ellucian Live 2024: Panel Speaker</b>   | 2024      |
| <b>RowdyHacks IX: Best Use of Google Cloud</b>   | 2024      |
| <b>Collegiate Cyber Defense Competition (CCDC): Linux Team Lead</b>  | 2024      |
| <b>National SimSpace CyberCup Blue Team Competition</b>  | 2024      |
| <b>Collegiate Penetration Testing Competition (CPTC): AWS Security Specialist, Central Region Champion</b> | 2023—2024 |
| <b>Department of Energy CyberForce Competition: Team Captain, Threat Hunter</b>                            | 2023—2024 |