

# SEBASTIAN ALEXIS

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CYBERSECURITY RESEARCHER

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Cybersecurity researcher recognized by NSA for SecureOSS vulnerability scanning platform. CompTIA A+ and Network+ certified with expertise in malware detection and penetration testing. Extensive full-stack software development experience building enterprise-scale applications. Published IEEE author with proven track record in CTF competitions and security education leadership.

## RESEARCH & PROJECTS

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### PDF-based Stegomalware Detection Research

*International Science and Engineering Fair (ISEF) 2025 Third Place Grand Award · Published in IEEE*

Developed novel detection method using Kolmogorov complexity approximation to analyze PDF JavaScript, metadata, and actions. Presented research at IEEE's Silicon Valley Cybersecurity Conference.  
Publication: [ieeexplore.ieee.org/document/11133625](https://ieeexplore.ieee.org/document/11133625)

### SecureOSS Platform

*International Science and Engineering Fair (ISEF) 2024 NSA Research Award*

Cloud-based vulnerability scanner for open-source transitive dependencies. Parses SBOMs with parallel CVE queries via NVD. Achieved 95% accuracy detecting critical vulnerabilities including Log4j.

### OCSEF Website

[ocsef.org](https://ocsef.org)

Designed and developed high-traffic platform for one of the largest regional science fairs in the US. Built with Svelte and hosted on Firebase. Implemented scalability optimization and comprehensive admin panel for event management.

## CERTIFICATIONS

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### CompTIA A+

Hardware, Networking  
Operating Systems, Security

### CompTIA Network+

Routing, TCP/IP, Wireless  
Network Troubleshooting

## TECHNICAL SKILLS

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### Languages

Python, JavaScript, TypeScript, SQL

### Frameworks

React, Vite, Svelte

### Databases

SQLite, MySQL, PostgreSQL

### Cloud & Infrastructure

Cloudflare, Firebase, Docker  
Proxmox, Linux

### Security Tools

Wireshark, Nmap  
Penetration Testing  
WiFi Security Analysis

### AI/Development

Claude Code, OpenAI Codex  
Claude Agent SDK

### Specializations

Vulnerability Scanning  
CVE Analysis  
CTF Competitions  
Malware Detection

## LEADERSHIP & EXPERIENCE

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### Cybersecurity Club *Founder & President*

Instruction in penetration testing,  
CTF competitions, WiFi security.  
Developed CompTIA prep course.

### OCSEFhacks *Founder*

SoCal's largest pre-collegiate  
hackathon. 127 participants,  
\$5,000 in sponsorships.

### Eagle Scout *Boy Scouts of America*

Senior Patrol Leader, ASPL,  
Instructor, Webmaster

### GenCyber Camp *NSA/NSF Program*

OS security, digital forensics,  
SQL injection, networking,  
ethical hacking

## EDUCATION

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### Irvine Valley College

Database Management  
Intro to Microprocessors  
Computer Information Management

### Saddleback College

Information Systems Security

## ACHIEVEMENTS

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— 2nd Place Anthropic Neurogrid CTF (2025)  
— 2nd Place Adobe Solo CTF (2025)

### Cybersecurity Hackathons

— CrackTheCode: 1st Place (2024, 2025)  
— MakeUC: 1st Place (2024)  
— MakeUC: Best Use of Vultr (2025)