

# LAI QUAN THIEN

## Cybersecurity Engineer

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Portfolio: [wanthinnn.github.io](https://wanthinnn.github.io) • GitHub: [github.com/WanThinnn](https://github.com/WanThinnn) • LinkedIn: [linkedin.com/in/WanThinnn](https://linkedin.com/in/WanThinnn)

### SUMMARY

I am a student majoring in Information Security, specializing in SIEM/SOC operations and Cryptography. I possess skills in threat detection, incident response, and secure data processing. I also understand how to implement centralized cyber-attack event management systems to strengthen an organization's defensive posture.

### EDUCATION

#### University of Information Technology, Vietnam National University, Ho Chi Minh City

Bachelor of Information Security; Academic Years: 10/2022 – 03/2026 (Expected)

GPA: 8.53/10

#### Huynh Man Dat High School For The Gifted, Rach Gia Ward, An Giang Province

Specialization: Information Technology; Academic Years: 09/2019 – 07/2022

Specialized Subject GPA (3-year average): 9.6/10

### TECHNICAL SKILLS

- **Programming Languages:** C/C++, C#, Python
- **Security Tools:** Security Onion, ELK Stack, Suricata, Snort, Zeek, pfSense
- **Cryptography Libraries:** CryptoPP, OpenSSL, Charm-Crypto
- **Cloud:** AWS (EC2, S3, RDS), Firebase (Realtime Database, Firestore)
- **Operating Systems & Virtualization:** Kali Linux, Ubuntu, Windows, macOS; VMWare, KVM
- **Core Expertise:** SIEM/SOC Operations, Cryptography, Secure Data Processing
- **Compliance:** ISO 27001, ISO 27002, MITRE ATT&CK, Metasploit Framework
- **Languages:** Vietnamese (Native), English (Basic)

### CERTIFICATIONS

[Google Cybersecurity](#)

[Google IT Support](#)

[Office of the CISO Institute: Cybersecurity Essentials](#)

### PROFESSIONAL EXPERIENCE

#### PERSONAL PROJECT:

##### Hybrid CP ABE Library, 09/2024 – Present

- **Project:** Hybrid Ciphertext Policy Attribute Based Encryption Library for C/C++
- **Github:** [github.com/WanThinnn/Hybrid-CP-ABE-Library.git](https://github.com/WanThinnn/Hybrid-CP-ABE-Library.git)
- **Description:** Developed a cross-platform C/C++ library implementing the CP-ABE AC17 scheme combined with AES-GCM-256 for hybrid encryption.
- **Technologies:** C/C++, CryptoPP, rabe-ffi; static & shared libraries.
- **Responsibilities:** Designed, optimized, and implemented hybrid CP-ABE AC17 + AES-GCM-256 library in C++, built and tested cross-platform; documented for developers.

#### TEAM PROJECTS:

##### 1. SIEM Project, 01/2025 – 07/2025 (Leader)

- **Project:** Research and Implementation of a Centralized Management and Processing System for Cyber Attack Events
- **Github:** [github.com/WanThinnn/SIEM-Central.git](https://github.com/WanThinnn/SIEM-Central.git)

- **Description:** Research and Implementation of a SIEM solution using the ELK Stack to collect, analyze, and visualize security events from Windows/Linux systems and tools like Suricata, Zeek, pfSense in a simulated environment.
- **Technologies:** Elastic Stack (ELK), Network/Security Devices (Zeek, pfSense), Inline IDPS (Suricata), Nginx Web Server, VMware Workstation Pro.
- **Responsibilities:** Designed and deployed ELK-based SIEM ingesting logs from 6+ sources, built Kibana dashboards with MITRE ATT&CK detection rules, configured Suricata inline IDS/IPS with Zeek, pfSense, and reverse proxy, and tested detection with simulated attacks.

## 2. Security Onion IDS Project, 02/2025 – 06/2025 (Leader)

- **Project:** Research and Implementation of Commercial IDS Solution - Security Onion
- **Github:** [github.com/WanThinnn/Security-Onion-IDS-Project.git](https://github.com/WanThinnn/Security-Onion-IDS-Project.git)
- **Description:** Implemented Security Onion for intrusion detection and network security monitoring, configuring core components like Suricata, Zeek, ELK Stack.
- **Technologies:** Security Onion, Suricata, Zeek, ELK Stack, Wazuh, pfSense.
- **Responsibilities:** Deployed and configured Security Onion in various network scenarios. Researched and analyzed NSM methodologies, focusing on full packet capture, intrusion detection, and alert data analysis.

## 3. Cryptography Project, 02/2024 – 07/2024 (Leader)

- **Project:** Confidentiality and Access Control in Amazon RDS MySQL
- **Github:** [github.com/WanThinnn/Cloud-RDS-Crypto-Access.git](https://github.com/WanThinnn/Cloud-RDS-Crypto-Access.git)
- **Description:** Research and implementation of a multi-layered database encryption system using AES-GCM-256 and CP-ABE (AC17) on Amazon RDS MySQL. Sensitive columns were encrypted with AES, while key access was enforced via CP-ABE and ABAC.
- **Technologies:** Python 3, AES-GCM-256, CP-ABE, bcrypt, ABAC, OpenSSL, PBC, GMP, Charm-Crypto, Amazon RDS MySQL, MongoDB.
- **Responsibilities:** Led project planning and team coordination; designed and implemented AES-GCM + CP-ABE hybrid encryption for RDS MySQL with secure configuration and optimized performance.

## SOFT SKILLS & ACTIVITIES

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- **Leadership & Teamwork:** Led 10+ academic project teams; Secretary of Ho Chi Minh Communist Youth Union since 2019.
- **Communication:** Strong public speaking and technical presentation skills.
- **Achievements:**
  - **Academic Achievements:** Received Certificates of Commendation for Very Good academic performance and extracurricular involvement (2022–2025).
  - **Youth & Leadership Achievements:** Recognized for outstanding contributions to Youth Union activities and exemplary youth leadership in 2022–2024.

## INTERESTS

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- Emerging technology trends, computer architecture, applied cryptography and post-quantum cryptography
- Computer vision and image processing for security applications
- Biometric authentication systems and advanced security models