

# ALEX TSAI

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## Certifications

**CompTIA Security Plus**

**May. 2023 - May. 2026**

**Red Team Apprentice Certification (RTAC)**

**July 2023**

## Education

**Virginia Polytechnic Institute and State University**

**Aug. 2022 - May 2024(Expected)**

Master in Computer Science, *GPA 3.8/4.0*

*Falls Church, VA*

**Tamkang University (TKU)**

**Sep. 2016 - Feb 2021**

B.S. in Computer Science, *GPA 3.2/4.0*

*Taipei, Taiwan*

## Work Experiences

**Cyber Intern 2023 - Millennium Corporation**

**June 2023 - July 2023**

Cobalt Strike/Mimikatz/Dirb/Nmap/BurpSuite

*Hunstville,AL*

### • Red Team operation Training

- \* Successfully executed controlled spear-phishing campaigns, leading to the compromise of two machines and subsequent intranet access.
- \* Utilized credential harvesting techniques to pivot across multiple Windows machines, highlighting vulnerabilities in access controls.
- \* Established simulated persistent backdoor access on domain controllers and workstations, showcasing potential security threats.
- \* Developed a comprehensive security hardening strategy, offering actionable recommendations for bolstering the company's information system.

**Software Security Engineer - Sunnet Cyber**

**Jul. 2020 - Feb. 2021**

Ansible Playbook/Proxmox(virtual environment)/Nmap/Metasploit/Hydra/Nessus/Gitlab

*Taipei, Taiwan*

### • Cyber Security Training Platform

- \* Developed an innovative cyber security training platform, reducing 60% development and maintenance time .
- \* Enhancing the features' deployment time by 5 times.
- \* Designed 20 penetration test labs that mimic real-world scenarios.

### • Automated Penetration Bot

- \* Implemented a high-concurrency automated penetration bot for efficient security auditing projects
- \* The bot discovered critical vulnerabilities in 100 out of 1500 machines within 1 hour, demonstrating the bot's accuracy and effectiveness
- \* Enabled rapid identification and mitigation of security risks, ensuring a more secure network environment

### • Cyber Threat Feed Analyze

- \* Increased 80% productivity compared to manual reporting
- \* Promoted better understanding of potential cyber risks and their implication
- \* Integrated data visualization tools for threat intelligence presentation, supporting informed decision-making

**Cloud Solution Architect Intern - Microsoft**

**Jul. 2019 - Jun. 2020**

Azure/Keras/SQLite/python

*Taipei, Taiwan*

### • Product Recommendation System

- \* Analyzed over 5 million data points for improving the accuracy and relevance of product recommendations
- \* Enhanced user experience and customer satisfaction by providing personalized suggestions based on user preferences and behavior

### • Cloud Solution Workshops

- \* Conducted four one-day cloud solution workshops for 100 small and medium tech companies, guiding them in identifying and prioritizing cloud adoption opportunities
- \* Demonstrated the practical use of Azure Logic App, Azure Functions, and Azure API Management in workshop sessions, enhancing participants' understanding of cloud technologies

## Projects

**Front-Back Separation E-commerce Websites (Individual Project)**

**Jan. 2022 - Feb. 2022**

React/Django-RESTFUL/Redux/Flask/RabbitMQ/Redis

- Developed a visually appealing and user-friendly e-commerce website with front-back separation
- Created six features, including a login/logout/register page, full-feature cart page, product review page, top products carousel page, and admin page, using React
- Built a product review backend service, facilitating efficient collection and management of user reviews
- Synchronized the user data across different databases and improved the browsing speed by five times.