Killian Zhou

Cybersecurity Consultant - Computer science engineer

+33 X XX XX XX XX — zhouefr@gmail.com — [in] *LinkedIn* — [O] *zhou-efr.github.io* — 📍 *Available for relocation*

Experiences

2023 - Today: *Cybersecurity Risk Consultant* at **CGI Business Consulting**
- **Conducted comprehensive cybersecurity risk assessments** using the EBIOS RM method for various clients, identifying vulnerabilities and potential threats in their IT environments or projects, including AI systems.
- **Collaborated with cross-functional teams** to integrate cybersecurity best practices into business processes, **ensuring a holistic approach to risk management** across more than 50 analyses.
- Performed **grey-box penetration tests on web applications**, identifying vulnerabilities and exploiting flaws on both client and server sides.
- **Regularly facilitated and led meetings and presentations** with project managers, demonstrating strong oral communication skills and enhancing clients' understanding of both technical and organisational cybersecurity issues.
- Developed and facilitated cyber resilience exercises, **preparing cyber crisis massified exercises** for an international company in French and English, strengthening industry-wide awareness on cybersecurity crisis.
- Supported the automation of reporting processes to streamline **threat evaluation of non-standard software** through **static and dynamic analysis**.

2022 - 2023: *Full-Stack Developer* at **Brainsecurity**
- **Designed, developed, and maintained** the company's *NextJS TypeScript* **platform for training businesses on cybersecurity awareness**, which was used by more than 1000 users among five Europe-wide companies.
- Overhauled 90% of the old web app to a **new version operating on modern authentication frameworks**, using *Python script* automation.
- **Conceived and secured the company's administrative application** to prevent unauthorised traffic and sensitive information disclosure of thousands of users.

2020 - 2024: *President, then Project Manager* of **ICE EFREI**
- **Managed multiple technology projects**, including supercomputers using cluster architecture and a fully automated domotic room using multiple embedded programming technologies such as ESP32 or nano-computers, ensuring timely delivery and adherence to project specifications.
- **Mentored team managers on project implementation**, providing guidance and support to achieve significant growth and successful mission delivery.

2019 - 2022: *Developer* at **SEPEFREI Junior Enterprise**
- Delivery of high-quality **web apps and scripts with quick and efficient coding** within tight deadlines, **earning the trust and satisfaction of clients**.
- Juggled the demands of college coursework while satisfying the needs of 5 distinct clients over two years.
- Contribute to the success of SEPEFREI Junior Enterprise, helping to drive over 15,000€ in turnover and earn recognition as one of the top 30 national junior enterprises.

Courses & Certifications

2025 - **First Aid at Work** (SST)
2024 - **Practical Junior Malware Researcher** (PJMR) – [link]
2024 - **Microsoft Certified: Azure AI Fundamentals** (AZ-900) – [link]
2024 - **7.5 / 9 International English Language Testing System** (IELTS) – [link]
2024 - **Practical Junior Mobile Tester** (PJMT) - [link]
2023 - **Offensive Security Certified Professional** (OSCP) – [link]
2022 - **Practical Network Penetration Tester** (PNPT) - [link]

Education

2019 - 2024: **Master's in IS Cybersecurity and Governance** at *EFREI Paris Engineering School.*
    Pertinent Courses: Python programming, C/C++ Programming, NextJs/Tailwind, MERN, Typescript, Hardware Security, Secure Architecture, Network Security, Cloud Security, FPGA Circuit Design, VHDL.
2022 - **Business, Computing, and Engineering** - Study Abroad Semester at *APU Kuala Lumpur.*

Projects

Home Lab Setup - Virtualisation - Automation - Network Security
- Set up Proxmox for efficient virtualisation and container management, running multiple VMs for testing and development.
- Configured Home Assistant for home automation, integrating with pfSense, FortiGate, FortiSwitch, and WLED/ESP32 C3 for smart lighting control.
- Deployed Nginx and Node.js with Docker/Portainer to streamline app management and optimise performance across the environment.

Router Analysis Home Lab - *Firmware extraction - Logic analyser - Python - Embedded Linux*
- Conducted firmware extraction and analysis using Flashrom and binwalk to identify security vulnerabilities in a Cisco router's firmware.
- Performed UART pin interfacing to capture boot logs and evaluate potential entry points for exploitation.
- Tested router security by simulating red team attacks, including password hash cracking and remote code execution, to assess system vulnerabilities.

Master Project - ESXi 7 - Windows Active Directory - DNS - Debian - Group Policy - Risk Analysis
- Developed and managed a complex network infrastructure using ESXi 7, integrating various operating systems, including Windows Server and Debian, for diverse application needs.
- Configured and administered Windows Active Directory, leveraging Group Policy for enhanced security and efficient management of network resources and user policies.
- Conducted an extensive risk analysis of the network infrastructure, identifying potential vulnerabilities and implementing strategic measures to mitigate risks.
- Implemented system configurations and security protocols in line with best practices, ensuring the integrity and confidentiality of sensitive data across the network.
- Utilised advanced monitoring tools to continuously oversee network performance and security, promptly addressing any issues to maintain optimal system functionality.

Active Directory Home Lab - *Windows Server 2019 - DNS - LDAP - Group Policy - Kerberos*
- Constructed and rolled out a comprehensive Active Directory environment to simulate a real-world network and conduct security evaluations using various red team attacks.
- Automated red team activities such as reconnaissance, privilege escalation, and data exfiltration through the development of custom scripts and tools.
- Continuously monitored and tested the Active Directory environment to verify the efficacy of the security controls and identify any new vulnerabilities or risks.

Awards

06/2022: **Google Cloud Hackathon for climate change**: Top 10 national
- Conceived email sustainability with a cutting-edge IT solution, resulting in a significant decrease of over 75% in carbon emissions.
- Delivered a compelling presentation to executives from esteemed companies, including Thales and LVMH.