Oliver Mannion

Experience

TÜV SÜD

Penetration Tester

- Gained hands-on experience with setting up test environments (network labs) to simulate attacks and find vulnerabilities within IoT firmware & web applications.
- Used industry standard methodologies such as the OWASP Firmware Security Testing Methodology and known regulatory standards such as ETSI EN 303 645, the UK's PTSI Act and the NIST IoT Cybersecurity Guidelines.
- Networking & IoT Protocols (MQTT, CoAP, HTTP, UART & JTAG), Linux OS usage (Primarily Debian based distros), security standards, basics on ethical hacking, basics of Python & Bash scripting & technical documentation.
- I extracted, analysed & took advantage of vulnerable insecure IoT firmware to find weaknesses within its system and exploit potential vulnerabilities as well as documenting and compiling detailed reports about my findings.

Extracurricular

Capture the Flag (CTF's)

1st Competition - Competed in the WorldSkills Root-Me CTF competition in 2024

2nd Competition – Competed in the Huntress Cyber Security Awareness CTF competition in 2025

Talk Track links

Yorkshire DevOps #32 - Oliver Mannion | 1st Talk on "Why more companies such implement a bug bounty program"

Projects

Azure SOC Lab - Deployed a cloud-based honeypot on Microsoft Azure to capture and analyse global cyber threats in real-time. The system monitored unauthorised access attempts, aggregated security events and also visualised attack patterns through an interactive global heat map.

Hobbies

Member of Yorkshire DevOps - A local group whose events I regularly attend to meet with professionals inside of Technology, they host talks mostly DevOps related but also have side-talks & off-topic talks to do with hybrid infrastructures, software engineering & cyber.

CTF Competitions & Practical Labs - Regularly compete on **PicoCTF** and TryHackMe platforms to strengthen cybersecurity skills, focusing on network security, threat modelling, and vulnerability exploitation techniques.

Home Network Security Testing - Conduct authorised penetration testing on personal network infrastructure using Kali Linux tools (Wireshark, Nmap, Ghidra, x64dbg) to develop practical skills in network analysis, exploitation, reverse engineering, and SSH configurations.

Hardware & Network Projects - Configure Raspberry Pi home lab environments and OpenWRT router deployments. Experimented with ESP8266 Wi-Fi boards for wireless security research, including access point broadcasting and network analysis.

Programming & Automation - Develop Python and PowerShell scripts for desktop automation and system maintenance tasks. Proficient with CLI navigation across Linux and Windows environments.

Malware Analysis & C2 Frameworks - Researched botnet architectures and command-and-control frameworks using isolated lab environments to understand attacker methodologies and malware behaviour patterns.

Portfolio Website Development - Built and deployed portfolio website omannion.com from scratch, hosted on GitHub Pages: Profile Link with custom Cloudflare DNS record configurations, subdomain management, and SMTP server integration for professional email services.

Certifications

Google Cybersecurity Professional Certification

Affiliations & Skills

Skills: Linux (Kali, Ubuntu, Debian-based mainly), Python, Bash, IoT, Ethical Hacking/Pen Testing, Networking, Cybersecurity, InfoSec, Computing, Computer Science, Maths, English, Documentation, Piano, Communication, Teamworking, Strong Work Ethic & Collaboration, Speaking.

Education

Barnsley College 2024 - Present

Level 3 Digital Support Services, Networking & Cybersecurity T Level

Qualifications:

- **(Predicted Distinction overall)**

Outwood Academy Shafton 2019 - 2024

Qualifications:

- Mathematics **Grade: 5 EDEXL**
- English Language **Grade: 6 WJEC**
- English Literature **Grade: 5 WJEC**
- Computer Science **Grade: 6 OCR**

(References Available upon request)