# Joshua Talbot

#### **Education**

Abertay University Dundee

BSc Ethical Hacking (Merit) - GPA: 3.50

2016-2021

Strong results in core modules: Programming (A+), Networking (A), Forensics (A), Project Planning & Delivery (A)

## **Experience**

Projects...

**Self-Hosted Email and Website**: Configured a VPS to run a secure web and email stack with SPF, DKIM, DMARC, and TLS encryption. Applied system hardening via SSH keys, firewall, and scripted maintenance.

**Private VPN Infrastructure**: Deployed and manage a hardened OpenVPN server on a private VPS with strict firewall and access controls. Implemented port knocking, SSH key authentication, and traffic encryption for secure remote access. Planned upgrades include automated certificate rotation and usage logs with alert triggers.

**Self-Hosted Cloud Media Server**: Deployed a secure Nextcloud instance on a Raspberry Pi with HTTPS, remote access, and automated backups. Configured reverse proxy, fail2ban, and hardened user permissions.

Academic

Cyber Science 2020 Virtual

Conference Presenter

2020

Presented original research on lightweight virtualisation technologies and their role in improving system performance and reducing attack surfaces. Delivered findings to an academic and industry audience at an international cyber security conference.

French Naval Academy Dundee

Researcher 2018–2019

Collaborated on the design and deployment of a lightweight virtual machine system focused on performance and security. Worked with multiple development teams using Agile practices, and delivered a fully integrated, testable prototype environment.

Employment.....

Dean Park Hotel Kirkcaldy

Bartender & Floor Staff

2022-Present

Deliver high-quality customer service in a fast-paced hospitality environment. Collaborate with a small team to ensure smooth daily operations during peak hours.

Waverley Castle Hotel Melrose

Receptionist

2021-2022

Managed bookings, till accounts, and customer communications via phone and email. Provided IT support for basic software installations and created Excel automations to streamline admin tasks.

## **Technical Skills**

## Offensive Security.

Tools: Nmap, Burp Suite, sqlmap, Hydra, Metasploit, Searchsploit, Responder, Impacket

Techniques: Recon, Web Application Testing, Payload Generation, Lateral Movement, Post-Exploitation

Network & Systems.....

Tools & Tech: Cisco Packet Tracer, iptables, UFW, fail2ban, systemd, WireGuard, Wireshark

Networking: TCP/IP, HTTP(S), DNS, NAT, Port Forwarding, Firewall Configuration, Network Analysis

#### Infrastructure & Administration.

Server Stack: Postfix, Dovecot, Nextcloud, cron, Apache, Nginx, Docker

System Hardening: Linux (Arch, Debian, Ubuntu), SSH Keys, Firewall Rules, SELinux/AppArmor

## Scripting & Automation

Languages: Python, Bash scripting

Practices: SSH Automation, Log Management, Scheduled Tasks, Automated Backups, and IaC through Ansible

## Security Concepts.

Privilege Escalation, Identity & Access Management (IAM), Multi-Factor Authentication (MFA), Credential Management, Defense Evasion, DNS Security, Cloud Security, Threat Modeling.

#### Skills Summary

Proficient in Python, Bash scripting, and Linux system administration. Experienced with C++, C#, Rust, Go, and Assembly at a foundational level. Familiar with front-end (HTML/CSS, JavaScript) and back-end (PHP, SQL) web technologies, Git/GitHub for version control, and Agile workflows.

## **Interests**

Penetration Testing: Hands-on learning through labs, CTFs, and bug bounty platforms.

**Software Development**: Building custom Linux environments, scripting, and personal projects.

Hardware Projects: Building IoT devices, custom PCs, and DIY electronics.

Gaming & Storytelling: PC gaming enthusiast with a passion for fantasy literature and Dungeons & Dragons.

## References

#### **Xavier Bellekens**

**Professor** 

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### Ryan Wallace

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