

# Richard Waters

 Liverpool, UK

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 [GitHub](#)

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## *Profile*

Experienced **Cybersecurity Engineer & Penetration Tester** with over 10 years in full-stack software development, AI integration, and offensive security. Passionate about building custom security tooling and helping businesses identify vulnerabilities through real-world attack simulations. Strong background in red teaming, ethical hacking, and vulnerability management. Currently pursuing **CompTIA Security+** and **Microsoft Azure Fundamentals** certifications.

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## *Philosophy*

“The code is not the problem — the teaching is the problem.”

Adaptability, curiosity, and feedback interpretation matter more than any single language or tool. I apply this mindset across cybersecurity, AI, and development — always striving to improve systems, people, and security posture.

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## *Core Technical Skills*

**Security & Testing:** OWASP ZAP, Burp Suite, Social Engineering, Phishing Simulations, Penetration Testing, Custom Python Security Tools, Red Teaming

**AI & ML:** TensorFlow, OpenCV, scikit-learn, Reinforcement Learning, Hugging Face, Pandas, NumPy

**Languages:** Python, JavaScript, PHP, C++, Java, Kotlin, Rust, Go, C#

**Frontend & Backend:** React, Next.js, Tailwind, Node.js, Express, Django, Flask, Laravel, .NET Core

**Cloud & DevOps:** GitHub Actions, Docker, Kubernetes, Azure, AWS, Google Cloud, Vercel, BitBucket

**Databases:** MongoDB, PostgreSQL, MySQL, Firebase, Neo4j, Prisma

**Platforms & CMS:** Shopify, WordPress, Custom CMS

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## **Projects**

**PassSmash** — *Cybersecurity | Next.js, Python*

Password cracking simulator demonstrating real-time brute-force and dictionary attacks. Integrated educational interface to raise awareness of password vulnerabilities.

**LumaScope** — *AI + Healthcare | Next.js, Python, TensorFlow*

Web app for Leukemia detection through blood sample image classification. Integrated dynamic model retraining to improve accuracy with each new upload.

**OWASP Gamified Platform** — *Security Education | Flask, React*

Developed interactive labs teaching OWASP Top 10 through gamified challenges. Used by junior security analysts for hands-on training.

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## **Work Experience**

**Senior Software Developer | Club L London | Manchester | 2022 – 2025**

Built scalable Node.js + MongoDB systems for Shopify syncing and automation. Designed CI/CD pipelines using Docker and GitHub Actions. Integrated 3rd-party APIs and improved backend security. Collaborated across teams for seamless delivery.

**Cybersecurity Engineer | ShadowFox Security | Remote | 2021 – 2022**

Led penetration testing engagements and red team simulations. Built automated scanning workflows using ZAP, Burp Suite, and custom Python scripts. Delivered high-quality reports and remediation plans.

### **Software Developer | Liverpool Hope University | Liverpool | 2020**

Created a PHP-based form system for budget and grant applications. Prioritized usability and secure data handling. *Commissioned by the Head of Computer Science while assisting during my time at Velstar.*

### **Frontend Developer | Velstar | Liverpool | 2019 – 2020**

Developed custom Shopify themes for retail clients (e.g. French Connection, Castore). Built customer-facing tools for QR discounts and loyalty programs.

### **Full-Stack Developer | Tornado | Liverpool | 2017 – 2019**

Created WordPress plugins and full-stack apps for councils and charities. Built CRM tools for rent management, automating workflows and reporting.

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## **Education & Certifications**

### **BSc (Hons) Computer Science – First Class Honours**

Liverpool Hope University – 2020

#### **Certifications:**

- CompTIA Security+ (*In Progress*)
- Microsoft Azure Fundamentals (*In Progress*)
- Preparing for CHECK Team Member (CTM)

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## **Extras**

- Contributor to open-source security tools
- Speaker at local dev and cybersecurity meetups
- Continuous learner in AI and cloud-native security practices
- Eligible for UK Security Clearance