



## Jonah McElfrick

Cyber Security  
Specialist

### How to reach me:

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**Linkedin:**

@JonahMcElfrick

**GitHub:**

<https://github.com/Jopo97>

### Personal Profile

Solution minded Ethical Hacker, skilled at using various hacking methods to determine system safety, threats and/or weaknesses. Passionate computer enthusiast with a keen eye for detail. Natural interest in all mathematics and computers. Advanced knowledge of computer hardware, software and how computers interact with each other over a network. Experience in computer building and maintenance. Experience working in multiple teams to bring projects together as a team leader. Works efficiently to maintain a high standard of work while keeping up to date with relevant tasks. Able to keep calm and concise under pressure. Very good numeracy and problem solving skills.

### Education and Qualifications

#### Abertay University

First Class BSc (Hons) in  
Ethical Hacking

- Attended from Sept. 2017 to June 2021
- Member of the Ethical Hacking Society
- Awarded the Mars Prize Award for best overall student in second year Ethical Hacking.

#### Madras College

May 2015 - National 5

- Chemistry - A
- Computing Science - A
- Engineering Science - A
- English - A
- German - A
- Mathematics - A
- Physics - A

May 2016 - Scottish Higher

- Chemistry - A
- Computing Science - A
- English - B
- Mathematics - A
- Physics - A

May 2017 - Scottish Advanced  
Higher

- Computing Science - B
- Mathematics - A
- Mathematics of Mechanics - A
- Physics - B

### Certifications

- AWS Academy Graduate - AWS Academy Cloud Foundations, Issued Dec 2020
- Short Leadership Course by ASDAN (Award Scheme Development and Accreditation Network)

### Career Summary

#### Cyber Security Analyst

Waracle Ltd

August 2020 to present

- Run security and compliance checks in order to provide evidence for different compliance standards.
- Automating data pull requests and audit processes in order to increase efficiency.
- Worked alongside the support team to monitor and provide access to different systems on a case to case basis.
- Updated virus protection systems based on computer virus reports.

#### Summer Intern

Informit Systems

June 2017 - August 2017

- Worked in a team to solve everyday issues with computer systems.
- Worked on a solo project using filemaker to create a new ticketing system for support requests.

### Professional Skills

#### Coding Languages:

Python, C++, HTML, CSS, PHP, SQL, JavaScript, Google Apps Script, Windows and Unix Command Line including bash scripting

#### Frameworks/Systems:

Windows/Linux/macOS systems  
AWS, Visual Studio, Android Studio, GitHub, Atlassian Suite, Microsoft Suite, G-Suite

### Character References

**David Ellis**

DevOps & Support Manager  
[d.ellis@waracle.com](mailto:d.ellis@waracle.com)  
Tel: 0800 169 6877

**Dawid Olejnik**

Software Developer  
[dawid99ghost@googlemail.com](mailto:dawid99ghost@googlemail.com)  
Tel: 07875938262

## Experience

Knowledgeable in the following areas:

- Analysing system security risks to identify and implement appropriate security countermeasures.
- Web-based Penetration Testing
- Digital Forensics including Mobile, Network and Desktop Forensics
- Web Development and Deployment
- Windows System Exploitation
- Cloud Development and Security
- Secure Coding Practices
- Keen interest in data encryption and hashing methods for securing data at rest and in transit
- In-depth knowledge of Windows/Linux/macOS systems
- Basic understanding of machine learning and AI.
- Experience using and automating different interactions and calls to a variety of different API's.
- Reverse engineering android applications in order to find security vulnerabilities in the applications code.

## Hobbies

I enjoy a number of hobbies in my free time. I spend my time playing video games, watching movies and TV shows as well as reading up and researching the latest developments in computer hardware, software and security.

I enjoy tinkering and building computers for myself and friends.

I currently hold a 1st Dan senior black belt in Kickboxing in addition to a 2nd Dan junior black belt over the course of 14 years of commitment to the sport.

I also enjoy reading fictional novels.

I previously tutored both National 5 Maths and Physics.

## Previous Projects

### Reports/Papers:

- The Mathematics of Public Key Encryption
- Forensic Investigation into the case of John Doe
- Windows Server 2000 White Box Penetration Test
- Web Application Penetration Testing
- Storing and Transmitting Data Securely
- Network Mapping and Security Evaluation
- Network Forensic Investigation
- How Mobile Device Security is Challenging Law Enforcement
- Secure Coding Development Practices
- Artificial Intelligence and Network Packet Classification
- Human Centered Security
- Web Viewable Camera
- Development and Interrogation of a Mobile Forensics Testbed for Educational Use

### Development/Implementations:

- Boyer-Moore
- Rabin Karp
- Rabin Karp Multi-threaded
- Password Cracker
- Multi-threaded Password Cracker (MD5, SHA-224/256/384/512)
- Android Password Manager

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