George Gilligan

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Full stack developer and infrastructure Engineer with interests in computer security, classification/clustering algorithms, and all manner of useless trivia. Ballroom Dancer and Competitive Hacker.

EXPERIENCE

Trading Hub, *Software Engineer*   London, *June 2020 - Present*

- Wrote interactive dashboard in .NET web app to delegate granular control of EC2's to non-infrastructure instance owners.
- Wrote Powershell running tool in .NET web app, allowing developers to save down clearly documented, parameterised scripts for intuitive use via GUI by less technical users.
- Helped design and develop a WORM compliant backup storage pipeline.
- Maintained and supported custom C# automatic deployment and cloning pipelines for client EC2's.

University of Edinburgh, *Tutor*   Edinburgh, *January 2020 - March 2020*

- Lead labs and tutorials for the university's undergraduate *Computer Security* course.
- Covered Unix fundamentals, Metasploit, Wireshark, networking principles, and applied cryptography in Python.

SIGINT Edinburgh (University Cybersecurity Society), *Secretary*   Edinburgh, *June 2019 - June 2020*

- Wrote, organised and promoted Capture the Flag (CTF) competitions and other technical events.
- Organised the first edition of Scotland's largest ever CTF: **pwnEd**.
- Travelled with committee to conferences and competitions nationwide and overseas.

Metaswitch Networks *Software Engineer (Intern)*   Edinburgh/London, *May 2019 - August 2019*

- Added *Liquid Templating* to Ruby on Rails based diagnostics tool. Deleted thousands of lines of code with no functionality lost.

SKILLS

Programming Languages:
- **Good**: C#, Python, Powershell
- **Rusty**: Java, Ruby, MATLAB, R, Haskell, C, Bash

Technologies & Libraries:
- **Good**: Git, Gitlab, Visual Studio, Sublime, Kali, AWS (misc.)
- **Rusty**: Sage, Docker, Ruby on Rails, SVN

TEAM EVENTS

Deloitte CTF Qualifier 2019: Took 3rd place in the 2019 Deloitte CTF Qualifying round with the SIGINT 2nd team, beating 40 other university teams nationwide. Unfortunately could not qualify for the final as only one team per university was admitted.

Scottish Universities Cybersecurity Challenge 2018: Took part in competition run by BAE, National Grid & BT. My team won the CTF and came 2nd overall when factoring in the Social Engineering & Incident Response challenges.

Hack Harvard 2018: Worked with team to build "*HexLedger*", a hacker profiling app built on a multichain blockchain with a front end made with WixCode. We won "Most Useless Hack" out of over 200 teams. By far my teams proudest achievement.

Oxford Hack 2017: Created "*IOTea*", a tea brewing robot controlled via web app. We won Netcraft's "*Best Hardware Hack*", MLH's "*Most Ergonomic Hack*", Facebook's prize for "*Aligning with their vision*", and were overall competition finalists out of 100 teams.

INDIVIDUAL ACHIEVEMENTS & ACTIVITIES

- Working towards practical box hacking qualification OSCP (Offensive Security Certified Professional).
- Implemented CNN from first principles to classify CIFAR100 dataset, achieved 64.6% accuracy across a test set of 10,000 images.
- Served as a representative of my cohort in my 3rd and 4th year of university. Entailed regular feedback gathering from classmates via surveys and reporting my findings to the Director of Teaching in weekly meetings, and holding them to account to deliver changes promised.
- Ballroom Dancer; have danced competitively on the university circuit and served as Compère for a small competition.
- Earned black belt in Taekwondo after 6 years of training and served briefly as assistant instructor.
- Ran a marathon in March 2017 in aid of Shelter Scotland. Also an avid cyclist.

EDUCATION

University of Edinburgh   2016 - 2020

Undergraduate: Computer Science & Mathematics BSc (2:1)
- **Topics Studied**: Algebra, Calculus, Statistics, Algorithms, Security, AI, ML, NLP, Quantum Informatics

Perse School   2009 - 2016

Secondary Level: A-Levels & IGCSEs
- **A-Levels**: Maths (A*), Physics (A), Economics (B); **IGCSEs:** 7A*'s 2A's 1B