Emmet Friel

Software Engineer

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Software Engineer with 2 years demonstrable experience working across a wide range technologies and projects in an R&D environment. Working in cross-discipline teams I am the person to be at the forefront, challenging and spear-heading key decision making that works best for the team and the project as a whole. Innovating and curious nature to take ownership, deep dive into new technologies, projects and avenues allows me to solve problems in new ways and as a consequence I am continuously learning and growing to stay ahead.

Skills

Hardware Design & Embedded System Development

Network Security

Software Development experience in several languages such as C/C++, Python, HTML/CSS /Javascript, Bash, Ruby, VHDL

Ethical Hacking and performing security audits on a wide range of applications

Work History

2019-09 - Current

Software Engineer

Centre For Secure Information Technologies, QUB, Belfast

- Designed and built lightweight embedded Linux distributions including the hardware on FPGAs, microcontrollers and other IOT related devices using Vivado, Xilinx Tools, GNU/Linux suite, Petalinux, Yocto and various build systems such as Makefiles and Autotools in addition to programming the boards using Python, Bash scripting and Ansible for automated provisioning, VHDL for hardware design and C/C++ for various applications.
- Translating research into tangible products as well as assisting researchers and PhD students with their projects which has enabled me to contribute to a wide range of projects as well as integrating cross-discipline technologies to solve their issue.
- Established CSIT's Ethical Hacking group with the purpose of initiating a hacker culture in the workplace in the sense of forming a community to bring people

together to share ideas, interests and passions, learn new things and to generate new project ideas as well as teaching people how to perform penetration testing and to compete in competitions.

- Design, develop and build virtual cyber security based training for external companies. I assist in the management and building of the network architecture for the virtual scenarios on VMware's VCenter where it houses near 150 machines as well as managing user access and providing them remote access through Screenconnect. In addition I have experience administering Pfsense and Windows Firewalls, troubleshooting network issues, monitoring traffic using SIEM and network analyzers, securely configuring a wide range of servers, Active Directory, the use of automation tools for provisioning, translating technical standards to implement multi-layered approaches for security hardening and much more.

Education

2015-09 - 2018-06   **Master of Engineering: Electrical And Electronic Engineering**

Queen's University Belfast - Belfast

- Awarded the Racal Innovation Endowment Award. "The student who exhibits a talent for innovative thinking in undertaking a final year project in the field of radio communications"

2013-09 - 2015-06   **HND: Electrical & Electronic Engineering**

North West Regional College - Derry/Londonderry

2011-09 - 2013-06   **Level 3 Extended Diploma: Engineering**

North West Regional College - Derry/Londonderry

Certifications

2019-10   Certified Ethical Hacker

Interests

Play for a football team and regular gym goer.

Getting lost in a good book.

Host a wechall group where anyone can join and participate in security challenges and CTFs.

Built and manage my own domain using Jekyll that acts as my personal wiki.

Curious in all things tech related. Enrolled in several Udemy, Coursera and Youtube courses for personal development.