

Daniel Monaghan












Web Developer
Software Engineer
Systems Administrator

-  Aberystwyth, Wales
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About Me

Software developer and Linux systems administrator with an interest in web application security and scalability.

Technical Skills

-  VMware vSphere & vCenter Server
-  Linux Administration
-  Networking & IPv6
-  DNS (BIND)
-  Web Application Security
-  PHP 7 (Laravel), HTML5, JS, CSS
-  Python
-  SQL (MySQL, MariaDB)
-  NoSQL (Redis)
-  git & Subversion
-  LaTeX

References

Mr Andrew Chick
Information Services
Aberystwyth University

01970 823044
anc@aber.ac.uk

Dr Wayne Aubrey
Computer Science
Aberystwyth University

01970 622421
waa2@aber.ac.uk

Education

- 2014 - 2019 **MEng Software Engineering (G601)** Aberystwyth University
inc Integrated Industrial and Professional Training
- 2012 - 2014 **A-Levels in Mathematics, Physics and Electronics** Ysgol David Hughes
inc Welsh Baccalaureate

Awards

- June 2018 **Best Major Project** Aberystwyth University
Mark of 90% on dissertation project
- June 2018 **Best Performance in the Penultimate Session** Aberystwyth University
Highest average mark in the 2017/18 session for an MEng Student
- March 2014 **Evan Morgan Scholarship** Aberystwyth University
Average mark of 84% in entrance examinations
- June 2011 **Bug Bounty** Duo Security
Vulnerability found within PAM module

Employment

- 2018 - 2019 **Health Research Group** Aberystwyth University Computer Science
Developed a data storage platform (API and Web UI) for storing motion sensor data to aid research into Parkinson's disease and stroke rehabilitation
- 2017 - 2019 **Demonstrator** Aberystwyth University Computer Science
Working with lecturing staff to deliver practical sessions to first and second year students, mainly focused on Web Development, Java, and Systems Administration
- 2017 **Network Technician** Aberystwyth University Information Services
Maintaining and deploying wireless and wired networking infrastructure, diagnosing faults and liaising with departments across the university. Gained experience with Cisco IOS and enterprise level networking
- 2016 - 2019 **IT Service Desk** Aberystwyth University Information Services
Front line IT support via email, phone, and in person for staff and students. Dealt with technical issues, liaised with senior staff during outages and major incidents. Developed bespoke lost property system during quiet periods
- 2016 - 2018 **ICT Technician** Aberystwyth University Information Services
Tier 2 technical support for staff and students. Led projects such as deprecating 300+ Windows XP computers, developing bespoke software tools to streamline daily tasks, and auditing and securing pre-existing AV infrastructure
- 2013 - Now **Self Employment** Freelance
Web Development and Systems Administration for clients ranging from individuals to small, local businesses to government funded national bodies

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Additional Skills

-  Project Management
-  Customer Support
-  Welsh Speaker
-  Full UK Driving Licence




Other Work

-  Literature Grants Portal
-  Health Data Research
-  Ecological Database
-  Student Accommodation Website
-  Lost Property System
-  Technical Support System
-  Vulnerability Disclosure

Open-Source

-  <https://github.com/dkmonaghan>
-  Carbon PHP DateTime Library
-  Extron Controller Python Wrapper

Interests

-  Security Research
-  Photography
-  Live Music

Skills

Since 2008

Web Development

Developing high quality, secure, scalable web applications primarily using PHP 7 and Laravel 5. In-depth knowledge of PHP, HTML 5, JavaScript, jQuery, and CSS. Numerous examples of work available upon request, including paid freelance work and bespoke internal applications

Since 2015

Python

I have experience of utilising Python as a scripting language in a wide array of applications, such as automating server management, machine learning, monitoring and reporting, and more

Since 2013

Virtualization & Containerization

Experience of working with a range of both Type 1 and Type 2 hypervisors, such as VMware vSphere and Ixc, as well as their supporting software such as VMware vCenter. Additionally, I also have experience with the deployment and maintenance of Docker containers

Since 2011

Linux Systems Administration

I am proficient in the configuration, management and maintenance of Linux based server infrastructure, currently managing around 40 Linux virtual machines and a number of hosted VPS systems for personal use and for paid clients, ensuring uptime and service availability through continuous maintenance, software updates, and security assessments

Since 2013

Networking

Experienced at managing small to medium sized networks, with knowledge in IPv4 and IPv6 addressing, DNS, DHCP, SNMP, PXE Netboot, OpenVPN, Software Firewalls, and network segmentation. I have also deployed networking hardware such as wireless access points, network switches, and firewall appliances

Since 2013

Homelab

I have invested substantial time and money into my personal server infrastructure for software development and learning purposes. Currently comprising of two *VMware vSphere* hosts managed by *vCenter Server* and a 45TiB storage array, all connected via 10 GbE networking through a managed switch and a hardware *pfSense* firewall. This infrastructure is monitored extensively through the use of *Grafana* and *Observium* and runs services such as DHCP, authoritative DNS (BIND), *nginx* web servers, SQL servers, LDAP, mail, *Veeam Backup & Replication* and more. Where possible, these services are in high availability clusters, either through *keepalived* or via *vSphere HA*

Since 2010

Security

I have a keen interest in systems and web application security, and have been a frequent consumer of security podcasts and blogs for almost a decade. I have also claimed a small number of bug bounties from software companies for successfully identifying vulnerabilities, producing proof of concept code, and responsibly disclosing the issues