

Eoghan O'Brien

Through my roles in IT I have been fortunate enough to work across development, operations, quality control, and support. I have found a passion for secure software and working to achieve efficient secure systems.

Louth, IE

Website

www.eoghanobrien.ie

Email

hello@eoghanobrien.ie

EXPERIENCE

HMH Publishing, Dublin — Engineering Operations/Tier 3 Support

November 2019 - PRESENT

- Triage tickets from Tier2 and either assign to the relevant dev team, or resolve them as appropriate.
- Track trends and provide tools to remediate them faster reducing time to resolve or preemptively resolving potential customer issues
- Manage and lead multiple vendor teams across various complex systems.
- Liaise with in-house and contracted teams to generate runbooks, documentation, and tools to help remediate issues.
- Enhance existing tools used across support to allow efficient and effective triaging of issues.
- Maintain engineering operations infrastructure including EC2 instances, S3 buckets, and Aurora Postgres instances. This work included patching and ensuring instance sizes weren't under or over provisioned.

Blackbox, Limerick — System Test Engineer

August 2018 - November 2019

- Design, develop, and execute test cases for new versions of the software
- Develop tools to replicate Tier3 support issues. These tools were used to rapidly recreate customer issues which improved resolution times.
- Update and maintain the software used for flashing firmware and testing boards before being shipped. Improved throughput of boards by remediating issues experienced by factory staff.
- Reduced VM deployment from 3 days to less than 1 by automating the process.

Technologies

- Windows Server
- Active Directory
- Linux
- Postgres
- MySQL
- IBM LSF
- Apache Hadoop
- Jira
- VM-Ware
- AWS
 - EC2
 - S3
 - Aurora

LANGUAGES

- Java
- Python
- Bash
- C#
- Javascript

Continued Professional Development

ISTQB Foundation Level
(06/2019)

Blackhills Information
Security

- Soc Core Skills
(11/2020)

- Getting Started in
Cybersecurity
(01/2021)

General Motors, Limerick — *High Performance Computing Operations Engineer/Developer*

July 2016 - July 2018

- Java/Bash Development and maintenance. Projects were either remediation of issues or building features such as the FTP feature detailed below. The tools delivered were used by engineers scheduling for example vehicle renders or crash simulations.
- HPC Operations and ticket resolution/reduction
- Responsible for middleware software deployment in Java
- Maintenance and patching of HPC environment (1000+ servers)
- Hadoop Operations - providing server management support through the Ambari management layer. Managing monthly patch cycles across the Hadoop clusters.
- PHP/MySQL - Maintain, enhance, and secure Ops web-based tools through feature requests and security scan results. These tools were used to monitor the HPC network health as well as trigger upgrades when needed.

EDUCATION

University of Limerick, Limerick — *Graduate Diploma in Software Development*

September 2015 - May 2016

Modules: Software Design, Web Development, Software Quality & Testing, Database Systems

First Class Honours

University of Limerick, Limerick — *Music, Media, and Performance Technologies*

Sept 2006 - June 2010

Modules: Imperative Programming, Technical Maths, Introduction to Web & DB Technology, Digital Instrument Fundamentals, Digital Electronics, Digital Media Software Systems, Digital Arts, Human Computer Interaction, Applied Digital Audio, Applied Digital Video, Intelligent Systems, Information Society 2, Professional Issues in Software Engineering.

HIGHLIGHTED PROJECTS

Resume Website

A ReactJS website that I have written to promote myself online. I have hosted it on Netlify with the URL eoghanobrien.ie. It uses a CICD pipeline through Netlify to automatically publish updates promoted to the main branch on github. I have written it in Javascript and CSS.

Professional Self Study

Security Reading:

- Defensive Security Handbook
- Web Application Hackers Handbook
- Alice and Bob Learn Application Security

Software Development Reading:

- Clean Code
- Bash Cookbook.

Menu Generator — *Personal*

I am currently developing a Python tool written in Django using a PostgreSQL DB. It will account for the number of portions, people to be fed, and days of leftovers. This will display back to the user as a list of meals and ingredients.

Log4J remediation — *HMH Operations*

I was tasked with discovering the instances of Log4J in the Engineering Operations code base and making sure that every occurrence of it was patched as each new fix was released during late 2021 and into 2022.

This project involved asset discovery, inventory, and exploration. Each of our tools was in turn investigated for instances of Log4J either directly or through imported components. Once we had the list of affected apps the components were updated, rebuilt, and deployed as needed.

Keylogger Project — *Blackbox QA Project*

For this project I was told that a customer was experiencing an issue with incorrect characters being received on the host system when using the KVM (Keyboard Video Mouse) device. I created a script to convert a block of text into keystrokes and send it through our KVM. I then logged the keycodes sent at the KVM receiver, and logged the keycodes received on Windows. I was able to do this using bash on Linux inside the receiver and powershell on Windows. The goal of the project was to confirm that the issue was not being caused by our hardware.

FTP Project — *General Motors Dev work*

I was able to reduce the number of CPU cores being left unused which allowed more jobs to be processed in quicker succession and reduce overall operation costs. This was done through utilising existing tools and software already on our HPC cluster. After creating new dedicated queues in IBM LSF for file transfers we were able to schedule jobs specifically for returning results. These dedicated jobs had lower CPU requirements and thus released cores for use on other work. Because of this we saw a drop of 20% in idle or inaccessible CPU cores after this feature was released to the customers.