

Andrew Perry

DEVOPS LEAD

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Profile

A driven engineering lead who cares deeply about improving himself, his team and his company. He brings strong analytical skills to bear on all challenges, whether they are people orientated, technical or processes and is talented at distilling complex situations quickly and taking decisive action. Believes passionately in using data to drive decisions. Eager to bring his skills and expertise to a fresh challenge.

Experience

Modulr Finance Ltd

Edinburgh, Scotland

DEVOPS LEAD

August 2021 - Present

- Automated biweekly reporting of [DORA metrics](#), saving **3 days** every **2 weeks** across all engineering managers. As well as significantly improving the consistency, accuracy and precision of the measurements.
- Enabled the migration of the Modulr platform to containers. When I started the K8S platform was only designed to handle the needs of one service. I pulled the requirements of all services, the risks that needed mitigating and prioritised those with the greatest impact. In **2 months** we went from only **1** service capable of being on containers to all **53 services**.
- Created a Platform Support role within Modulr to ensure that the platform team could focus on the key objectives that would drive Modulr forward whilst also making sure we meet the more reactive operational requirements of a rapidly growing fintech. Defined roles and responsibilities and supported passionate, non-technical people to migrate to this role as a means to transition into Engineering. Significantly Improving both their job satisfaction and the delivery of platform work.
- Established metrics to measure team health, tracked them on a quarterly basis and collaborated with the team to halt negative trends and improve the worst areas. Prior to the implementation of this we lost **4 engineers** in the space of **4 months**, since implementation we have retained everyone and increased the size of the team beyond the original number. Quarter on quarter the overall trend has **always been positive**.
- Assessed Disaster Recovery risks across the platform, focused the teams efforts to mitigate those risks and reduced the K8S cluster Recovery time from **26 hours** to less than the company RTO of **2 hours** with **minimal changes** to the platform.
- Inspired a crucial character in a work based [fairytale](#) to explain how we went from being scared of audits to being empowered by them. This story is actively promoted by a partner of Modulr. The "deployment manager" character is based on me.
- As part of a collective, drove the change to end the monolithic release at Modulr. Now every team deploys their own changes and we are tracking the [DORA](#) metrics at a team level to ensure that we have the best possible engineering community. Last year we deployed **100 times**, this year we have deployed **1300 times and still counting**.
- Lead the team that integrated with [Kosli](#) for automated audit controls, this **enabled any developer** in the company to **deploy** their changes to **production**. Removing the platform team as a bottleneck and helping to enable the culture of you build it, you run it.
- Lead a team that created a python application to automate the deployment and rollback of individual services. This reduced the manual deployment steps from **28** to **1** (clicking the go button) and more than halved the deployment time from **75 minutes** to **30 minutes**. An additional significant benefit of this work was the automated testing of our deployment processes and **upskilling 5 engineers** from being able to script to being able to build complicated and powerful software applications.
- Reshaped the team from an embedded model to a platform focussed team with ambassadors to the engineering squads. This had an immediate impact upon both the wellbeing of engineers as well as the development of the platform.

Modulr Finance Ltd

Edinburgh, Scotland

DEVOPS ENGINEER

January 2020 - August 2021

- Broke the monolithic release process for the frontend applications which led to a reduction in the steps to release changes from **25+** to **5**, mean time to release has dropped from **1.5 weeks** to **4 hours**, this is an iterative process and further enhancements are still being made
- Introduced testing using terratest to the infrastructure layer of Modulr's estate and ran workshops to encourage a testing ethos
- Migrated the frontend applications to a CDN, transforming our content delivery and drastically improving the service across all five pillars of the AWS Well Architected Framework
- Automated the patching of all servers to maintain PCI compliance, reducing manual intervention from 5 days per month to zero
- Automated the daily tearing down and recreation of all non prod environments, saving thousands of pounds monthly
- Created Python packages to enable a higher order of interactions with AWS services which enabled other developers to automate complicated processes with ease
- Created a cross platform library of git hooks that reduced time to defect detection dramatically
- Leveraged AWS SSM to grant developers appropriate access to their services within AWS, enabling them to properly investigate and own any issues with their services

Cloudreach Ltd

Edinburgh, Scotland

CORE DEVOPS ENGINEER

February 2019 - December 2019

- Within a financial services customer:
 - Set the platform IaC standards, enabling the team to reason about the code quality, making technical debt visible and therefore actionable.
 - Automated the monitor of the platform source code to ensure that the various environments remain in sync which increased our release velocity.
 - Designed the release process, including release window, platform communication, rollback strategies and change control for a global platform.
 - Led a team which helped to roll out a global platform for application teams, the main focus was on improving the CI/CD workflows and development practices so that the team could scale non linearly.
 - Designed the Jenkins infrastructure and shared Jenkins libraries for a global platform.
 - Driven Agile Best Practices including running lookaheads, postmortems and retrospectives to ensure the team performs optimally and grows over time.
- Within Cloudreach:
 - Mentoring:
 - * Supported Junior Engineers
 - * Upskilled engineers to improve their software development capabilities

Cloudreach Ltd

Edinburgh, Scotland

DEVOPS ENGINEER

June 2018 - February 2019

- Within a financial services customer:
 - Revamped the platform proxies by updating the proxy configuration, improving the autoscaling rules, resizing the instances and shifted the majority of the traffic onto the AWS backbone by making use of the Interface/Gateway Endpoints. This led to significant cost savings and a more reliable platform
 - Created serverless responders that integrate into the EC2 instance lifecycle to ensure they are monitored for compliance
 - Built best practice libraries to showcase good development practice with a focus on testability and deployment strategies
- Within Cloudreach:
 - Organised group peer review sessions to improve the reliability and robustness of various codebases
 - Improved our onboarding processes to ensure that transitions between clients were efficient and worked for both Cloudreach and the customer whilst maintaining a focus on the engineer's well being

Simomics Ltd

York, England

SYSTEMS ENGINEER

January. 2018 - June 2018

- Transitioned the company from a siloed operations and development to a shared responsibility model with everyone capable of deploying any application with ease. This was enabled by fully implementing CI/CD
- Moved all of the AWS infrastructure to Hashicorp's Terraform to ensure that the entire configuration and user policies are clearly defined as code

Simomics Ltd

York, England

JUNIOR SYSTEMS ENGINEER

July. 2017 - January. 2018

- Redesigned Simomics AWS infrastructure to enable applications to scale, increase uptime and reach users faster.
- Led the transition from monolithic applications to separate backend and frontend services that both deliver enhanced user experiences and modern tooling for developers such as the Vue framework and webpack 4
- Designed and Developed an interface for visualising evidence enabling Government agencies to have a more evidence based approach

Agecurve Ltd

Remote worker

DEVOPS CONSULTANT

Jun. 2016 - Nov. 2020

- Designed and built the company's infrastructure on AWS from the ground up
- Designed and implemented the authentication and payment process
- Automated the backend workflow between partners, Agecurve and customers
- Experience in commercial decision making in regards to toolchains, scalability and product selection

The Sanger Institute

Cambridge, England

PLACEMENT STUDENT WITH THE HIGH PERFORMANCE COMPUTE GROUP

Aug. 2015 - Aug. 2016

- One year degree placement as a Systems Administrator with the High Performance Compute Group
- Designed and built testing platforms and CI workflows for migrating petabytes of data between metadata systems
- Designed and built automated systems for building OS images for use within a commercial cloud offering
- Built bespoke OS images for said environment
- Took responsibility for liaising with external vendors on software migrations

Technical Skills

These star ratings are meant to indicate my relative skill level. For example, 5 ★ python does not mean that I think I am the best in the world. But I think I'm pretty good and, of the languages I know, that is the strongest.

LANGUAGES

Python ★ ★ ★ ★
Bash ★ ★ ★ ★
Javascript ★ ★ ★
Go ★ ★ ★
C ★ ★

FRONTEND TOOLING

Vue ★ ★ ★
Vuetify ★ ★ ★
Webpack ★ ★ ★
Bootstrap ★
Snyk ★ ★

BACKEND TOOLING

Django ★ ★ ★
Flask ★ ★

CI/CD TOOLING

Jenkins ★ ★ ★ ★ ★
Gitlab CI ★ ★ ★ ★ ★

TESTING TOOLING

Terratest ★ ★ ★ ★
MyPy ★ ★ ★ ★
Serverspec ★ ★
Selenium ★ ★ ★ ★ ★
Cypress ★ ★ ★
Mocha and Chai ★ ★ ★
Inspec ★ ★ ★

INFRASTRUCTURE TOOLING

Hashicorp Tooling (Packer, Terraform, Vagrant) ★ ★ ★ ★
Docker ★ ★ ★ ★
Kubernetes ★ ★ ★
Serverless (AWS Lambda) ★ ★ ★
Ansible ★ ★ ★
SaltStack ★ ★ ★
PostgreSQL ★ ★ ★

CLOUD PROVIDERS

AWS ★ ★ ★ ★
GCP ★ ★

Education

University of York

MASTERS IN ELECTRONIC ENGINEERING WITH A SANDWICH YEAR - 1ST CLASS HONOURS

York, England

Oct. 2012 - July 2017

Achievements include:

- Project manager for a 10 person software engineering project that accounted for a quarter of the third year mark.
- Average mark of 79% for all maths modules
- Average mark of 79% for all programming modules

Extracurricular Activity

Been active in Scouting since childhood, still help out weekly as an assistant scout leader. Big hiker, loved the coast to coast. Recently started sailing. Huge fan of Terry Pratchett & Neil Gaiman. Voracious consumer of New Scientist and BBC news, pretty good man to have on a pub quiz. Makes a mean curry.