



ADAM MCMURCHIE

HEAD OF DATA, DEVOPS & INFRASTRUCTURE

An Automation, Data, Agile & DevOps evangelist from build & implementation to strategy and architecture. I drive automation, foster a culture of best practices and champion simplification. I am experienced in growing multi-functional scrum teams but equally adept at hands-on implementation. I am ranked *top 100 github contributors* globally and Cloud agnostic (AWS certified). I am experienced with traditional architectures; such as uplifting legacy mainframe with CICD for which I won the International DevOps award. I am a self-starter and continually invest in my own development. I have delivered on key high-profile projects, from ApplePay to SOA building architectures that support millions of online users.

TECHNOLOGY SUMMARY **Extensive knowledge (not just 'familiar with')*

CICD - Jenkins UrbanCode Elastisearch Kubernetes **Containers** - Kubernetes, Docker Vagrant VMware
IAC - Ansible, Terraform, Chef, CloudFormation Heroku **CLOUD** - AWS GCP Cloud Foundry
DEV - Anaconda , Python, Assembler, bash, power shell JAVA Android & Cradle C C++ NodeJs
TEST SonarQube Selenium & Cucumber CA-LISA **LEGACY** - Mainframe CICS Endeavor COBOL
AGILE - JIRA & Confluence **ADVANCED-DATA/AI** Pytorch/TensorFlow, Kaggle, Splunk, Pyspark

ROLE PROGRESSION SUMMARY

Developer, Test Automation, SysAdmin, Automation Engineer, DevOps Manager, Head of DevOps, Environments Lead

RECENT EMPLOYMENT HISTORY

Head of DevOps, Head of Environments and Architectural Lead: Barclays Chief Security Office January 2019 - present

A senior VP role with four core functions – firstly, I lead a team of 10 automation engineers to develop CICD platforms for rapid roll out of security & cyber applications/services which protect the bank. The second, is as the head of environments with a large focus on vulnerability management, server provisioning and configuration management. The third is infrastructure support, this is due to our team having broad specialist knowledge and thus we direct and assist the support team with all forms of challenges from certificates to cluster management. Finally, the role involved a degree of architectural design authority particularly for all physical security products in the bank (Vanderbilt, C-Cure CCTV, Facial Recognition, badge pass etc).

My role is both broad, specialized and hands on heavy covering: Deployment of end to end PaaS solution integrated with cloud and Kubernetes (OpenShift), rapid prototyping of new security applications, fault tolerant automation of python, java & Node apps, full journey pro-active monitoring (dynatrace & App-dynamics). Big Data infrastructure (Kafka, Hadoop and Pyspark) for mass data ingestion and processing. Beyond the technical, the aim is to drive towards a true multifunctional scrum, T-shaped model i.e. multi-specialist engineers with a culture of self-development.

DevOps Solutions Lead: Royal Bank of Scotland RBS October 2017 - December 2018

Based in the Strategic Accounts Opening platform SAO at RBS. Deliveries include, UCD Full Stack automation of micro-services & Static content (one-click deployments), UCR integration, automated shakedown tests & environment booking. This also includes a large degree of design, architecture and configuration management.

I uplifted capabilities in Monitoring, Alerting and Visualisation with Splunk, AWS & PCF (private cloud). By capturing metrics from all Deployment Servers, PCF droplets, Jira Performance Logs, UCD, Jenkins etc I have enabled end to end visualisation our CICD pipeline. By centralising our data, I have been able to capture details such as *Average time to open an account*, server heartbeats and PCF CPU load which is used to drive fault tolerance.

DevOps Automation Engineer: [Lloyds banking Group 2015 - October 2017](#)

Within the Cards & ATM platform, I have helped pioneer one of the UK's first transitions for a major bank from a legacy back end development lifecycle to an intelligent continuous delivery pipeline using UrbanCode & TDD with Jenkins, CA LISA, Ansible and Topaz. We have since won the UK best DevOps team awards for this.

Cards & ATM SME - Technical Specialist: [Lloyds banking Group 2013 - 2015](#)

Within the Self-Service Systems, I was working on the CMAS and Common Cards application (Cobol, CICS & DB2) within the credit and debit card platform at LBG. My role required an intimate understanding of the applications, databases and network systems with a large focus on CMAS – Cards and debit account Authorization system) that are intrinsic to the cards platform. I was also chosen to pilot our teams' transition to Agile and successfully delivered on projects such as Apple Pay, Tokenisation, ring fence banking, Rest Service enablement and more.

NOTABLE DELIVERIES

Automated FullStack One Click Deployments [UCD, Jenkins, Splunk](#)

As part of my sole delivery, I produced a full E2E automation solution for the micro-service & apache deployments carried out by both the development and environments team. Each deployment run took a whole day (stop, verify, install, verify etc) for either team to carry out and was largely prone to human error. This is now fully automated with UrbanCode - average time for deployments are now 8 minutes including agent spooling. All visualised in Splunk

Continuous Integration & High level Orchestration [Jenkins, UCD, Topaz, SonarQube](#)

I have successfully designed and built our teams code Automation and as such contributed to putting our team on the bleeding edge of mainframe DevOps automation for which we have been nominated awards. My contribution includes HLC control with Jenkins, automated deployment with UrbanCode spinning up Linux servers and removing manual processes for quality control. All scripts, and architecture I have written and built myself.

Testing Automation & TDD [CA LISA, Expeditor & Total Test - Regression testing, smoke testing etc.](#)

I have successfully rolled out our teams end to end regression testing solution in CA LISA, which I now am the team champion. I have configured the tool to do automated testing for all our SOAP,REST and MQ APIs. I have also enabled shift left with virtualisation (stubbing) - for which I have won recognition.

API Governance [Systinet, Troux & member of API Inner Circle](#)

I drove our team's central API repository Systinet for API governance and Troux for Data control both of which I am the champion and manage both governance and API quality control.

PROFESSIONAL & SOFT SKILLS

- ▶ **Champions Agile & Best Practices** – I encourage code amnesties & Evil User Stories, discourage KT hoarding and elitism in tech: leading by example. Structured collaboration via agile tools can only be achieved with the right culture.
- ▶ **Team capability building** – Empowering is not delegation, by enabling engineers to grow in the directions they want but balancing that with a proportion of shared responsibility growth can be achieved. KT uplifting can be delivered via simplified evolutionary skills matrix, picking up the phone or face to face for spontaneous training session help.
- ▶ **Drives process improvement** - by actively developing repositories and documentation, I inherited responsibilities such as Vulnerabilities, managing API repositories, application libraries and producing support documentation for the team.

Courses & Certification

Certified - AWS, COBOL, CICS, DB2, JAVA, JAVASCRIPT, PYTHON, PowerShell, PL1, Assembler & more.

Recognition: DevOps LOV Awards X2, 1st Place Lloyds Hackathon, International DevOps Awards 2016.

OPEN SOURCE TECHNICAL OVERVIEW

GitHub & Personal Projects

Passionate about OS collaboration I am the **top 100** GitHub contributors in the world, currently in 88th place. I combine DevOps methodologies with Machine Learning & A.I to deliver scalable intelligent solutions.

- **Automation**
 - Jenkins AWS integration
 - UCD Pipelines
 - CICD as a Service
- **Banking & Finance**
 - IBA Intelligent Banking Assistant
 - Bank Exit & Fraud Modelling
 - Credit Default Modelling
 - Cryptocurrency reporting
 - Crypto classification & Prediction
- **Big Data & AI**
 - Big Query
 - Kaggle Submissions
 - OpenWeather
 - Neural Networks (Pytorch/Tflow)
 - ML(RF, Ridge, XGBoost)
 - Sentiment Analysis
- **Social Utility**
 - Flood Storm Reporting (Android)
 - DeafBlind Konnect
 - Earthquake Tracker
- **Bots**
 - Slack
 - Twitter
 - OpenAPI
 - Lloyds Stellar
- **Hacking & CyberSecurity**
 - Twint as a Service
 - Interlinked
 - OSint
 - SQL TurboCharging
- **Design & Web**
 - Angular Basics
 - React Basics
 - BetaNova
 - Murchie85
- **DevOps**
 - AWS CloudFormation Optimisation
 - IBM UCD
 - Docker (lots!)
 - Kubernetes KataCoda
 - Ansible, Chef & Puppet Projects

Recent Works & Publications

A SnapShot of DevOps: <https://www.re-work.co/blog/a-snapshot-of-devops>

NLP in Finance: <https://www.re-work.co/blog/deep-learning-in-finance-nlp-adam-mcmurchie-lloyds-bank>

Jenkins AWS Pipeline Integration: <https://murchie85.github.io/jenkins.html>

Javascript Reverse Engineer a RAT Virus: <https://murchie85.github.io/rat.html>

Dedicated Chapter on my work and input in Innovation: <http://www.laffertyreports.com/reports-store/retail-banking-2020-research-service/artificial-intelligence-robotics.html>

Recent Talks/Presentations

Open Source as a Culture: <https://www.youtube.com/watch?v=IPXTLMgR7QA>

Security at the Speed of DevOps: <https://www.youtube.com/watch?v=DRvnE5uheS8>

Intelligent Frictionless Banking, China Global Banking Summit Shenzhen [Delivered in Mandarin Chinese]:
<https://vzan.com/live/tvchat-159419466?ver=637117302718428630>

Other Relevant Information

Fluent in multiple languages (*including Mandarin & Polish*) and have worked in China, India, Europe & the US.

Links

Home: <https://murchie85.github.io/>

Github: <https://github.com/murchie85>

Kaggle: <https://www.kaggle.com/adammcmurchie>