

# Graham Turner

AWS Certified DevOps Engineer and Python Institute Certified Python Developer

An experienced **Hands On** Senior **DevOps Engineer** and **Python Developer** with **15 years+** experience, including Architecting and delivering **AWS** and **GCP** public cloud hosted **GitOps** solutions based around **Linux**, **Terraform**, **Kubernetes**, **Helm** and **Docker**, alongside developing **Javascript**, **React js**, **Golang** and **ML** applications

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📍 UK Remote, Hybrid Cambridge London

🐙 Github.com/backenddeveloper/cv

## Core Skills Profile

### Public Cloud

AWS, Well Architected, Control Tower, Security Hub, EC2, EKS, RDS, Glue, GCP, GKE

### DevOps

CI/CD, Monitoring, Infrastructure as Code, Configuration Management, Networks, Linux Security

### Python Development

Python 3.12, FastAPI, OpenTelemetry, Poetry, Pytest, PyTorch, Scikit, TensorFlow, Keras, Pandas, Flask

### Containerization

Kubernetes, Docker, Nomad, Helm

### Security

Pentesting, ISO27001, Auditing Best Practices, vulnerability management

### Full Stack Development

Node, React.js, Next.js, Typescript, TDD, CSS, UI/UX

## Work Experience

### Lead DevOps Engineer

Times Higher Education 01/2023 – Current ~1 year

- Development of applications in Python 3.12 with FastAPI, OpenTelemetry, TensorFlow, Behave, Pytest
- Developing FullStack Javascript, Node, React, Next.js, Typescript, Webassembly, API integration
- Managing, Provisioning, Migrating HA Cloud Infrastructure, IoC, AWS EC2, ECS, EKS, S3, R53 Terraform
- Architecting shift-left CI/CD pipelines for value delivery, branch builds, on-demand end-to-end testing envs
- Implementing DevOps processes and leading DevOps culture, driving MLOps for security and marketing
- Automating dev-experience using Kubernetes, Docker, K8s Helm, Github Actions and Artifact workflows
- Implementation of monitoring, alerting, self-healing and sys-visibility, Cloudwatch, NewRelic, Prometheus
- In this role **I reduced cloud spend by over 80%** for the company through cost optimisation
- **I implemented the first testable Disaster Recovery Strategy**, after successful incident management
- **I streamlined release management, reducing release time by 60% and release failures by 70%+**
- **I implemented Developer-Ops culture through training, documentation and agile practices**

### Technical Lead

Click 04/2022 – 01/2023 ~2 years

- Development of applications in Python 3.10 with Flask, Uvicorn, OpenTelemetry, Airflow, Behave, Pytest
- Development of applications with FullStack Javascript, React, Vercel, WebAssembly (Golang), Typescript
- Implementing DevOps processes and leading DevOps culture, driving CI/CD value delivery, monitoring
- Delivering Highly Available Kubernetes environments based on AWS EKS and GCP GKE with Terraform.
- Automation of developer-experience using Docker, AWS, K8s Helm, Github Actions and Artifact workflows
- AWS cloud administration and governance for ISO27001. EC2, IAM, RDS, Lambda, ControlTower, R53

### Lead DevOps Engineer

Optibrium BioPharma 08/2019 – 04/2022 ~3 years

- Developing, implementing and architecting DevOps culture and CI/CD based around AWS automation.
- Operations around HA SRE workflows using Nomad, Kubernetes on AWS, GCP, HELM Docker, Terraform
- Developing and maintaining DataScience/ A.I. applications using Python, Golang, Rust and web-assembly.
- Hosting of high volume events streaming workflows using Celery, Spark, Redis, and fullstack Javascript.
- Building of self-healing automated continuously deployed systems based around intelligent monitoring.
- Multi-cloud governance, security testing and auditing. SIEM and monitoring with prometheus and ELK
- WebApp development with Node, Javascript, TypeScript, React, Python Flask and WSGI

## Senior DevOps Engineer

E-Skim Technologies 09/2018 – 08/2019 ~1 year

- DevOps and CI/CD administration based on AWS IAM, Route53, EC2, S3, RDS, CloudWatch, CloudFront
- Secure, HA Site Reliability Engineering with Kubernetes, Docker, Vagrant, Ansible, Terraform and Jenkins
- Application development in Java 9, JUnit5, Cucumber, Sonarqube, Apache Tomcat, Spring and Maven.
- Development in PHP 7, PHPUnit, Behat, Javascript, React, Symphony and Vue, Laravel, Lambda
- Development in Python2.7/3.6, unittest, behave/pep8/coverage, Django, Flask, Postgres, Redis, Celery

## Senior DevOps Engineer

Capita (UoS) 07/2017 – 09/2018 contract

- Development of an extensive Cloud based (AWS, GPC) and self-managed in DC estate.
- CI/CD, Docker, Vagrant, Kubernetes, Helm, Git-Kube, Jenkins, Jira, Linux, full KVM / container platform
- AWS Automatiion, Terraform, Packer, Rancher, Cloud Formation, Lambda, API Gateway, Cloud Front
- Linux hosting management, RHEL, Ubuntu, Kernel Mod-Dev, Chef, Puppet, Ruby, Python, Perl, Golang
- Application development in Java 9, JBehave, Mockito, Jetty, Spring Boot and Gradle
- Development in PHP 7, PHPUnit, Angular, Javascript, Jasmine, Symphony and Laravel
- Development in Python2.7/3.6, unittest, behave/pep8/coverage, Django, Flask, Cython, Redis Celery

## Senior Site Reliability Engineer

Piksel Television 09/2016 – 07/2017 contract

- Compliant BDD development in a wide ranging technical env with Java8, JUnit, Cucumber, PHP7, PHPUnit, Javascript, Jasmine, Python2.7/3.4, unittest, behave/pep8/coverage, Django, Flask, Jython
- Platform automation, Continuous Deployment, Docker/Rocker, Mesos-Marathon, Kubernetes
- Infrastructure as code, Puppet (Librarian), Ruby, Ansible, AWS and GPC automation tools
- Ultra-High-Availablity design, Software defined networking, event driven monitoring and architecture

**Head of Technology**

JSR Research

03/2016 – 12/2016 contract

**Technical Architect**

Talk Straight Broadband (Talk Talk)

10/2015 – 03/2016 contract

**Head of Reverse Engineering**

Games Warehouse International

03/2015 – 10/2015 contract

**Lead Developer**

The JDR Group

12/2013 – 03/2015 ~ 2 years

**Lead Pentester**

MatrixVision

06/2009 – 12/2013 ~ 4 years

**Pentester**

RALink

04/2006 – 06/2009 ~ 3 years

## Education

### The University of York

PGC CyberSecurity, PGDip Computer Science with CyberSecurity, Other and longer qualifications.

### The University of Liverpool

CertHE Japanese, Other and longer qualifications

Additional modules: Combinatorics, Mathematical logic and language (including Godel), Statistics for SPSS

### The University of Cambridge (Department for continuing education)

CertHE Legal practice for Paralegals, Other and longer qualifications.

### The University of Oxford (Department for continuing education)

Other and longer qualifications. Certificates/Short course awards in:

Study, language and work skills, Classical literature and the Bronte sisters, Philosophy of Mathematics

### The Open University (19 years)

CertHE Contemporary Science, CertHE Computing and IT, DipHE Mathematics, Bsc Mathematics, BSc Physical Science, BA Open. Additional CAT bearing modules:

Complex analysis, Mathematical Methods and Models, Fluid mechanics, Advanced calculus and its applications, Quantum Mechanics of Matter, Electromagnetism, advanced Java development.

(ISC)2 Associate of (ISC)2, CISSP - **EC-Council** – CEH - **CISCO** (CCIE) - **JUNIPER** (JNCIE) - **The**

**Chappel University**: WCNA - **OffensiveSecurity** (OSCP, AWAE) - **SANS Institute** (GPEN)

**Linux Professional Institute** – LPIC-3 (LPIC-2, LPIC-1) - **Zend** Certified PHP developer

**CompTIA** - A+ Network+ Server+ Security+ Linux+ CyberSecurityAnalyst+