**Mark Porter**  
*Senior AI Platform Engineer*  
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**Professional Summary**

Accomplished Senior AI Platform Engineer with extensive experience in designing, deploying, and maintaining scalable AI systems. Over 6 years of experience in AWS cloud services, Infrastructure as Code (IaC) tools, and software development. Skilled at building end-to-end machine learning pipelines, automating workflows, and ensuring platform reliability. Proven track record of optimizing infrastructure and delivering innovative cloud-based solutions under pressure to drive critical business impact.

**Core Competencies**

* Infrastructure as Code (Terraform, AWS CloudFormation)
* Cloud Architecture (AWS)
* Scalable Machine Learning Platforms (SageMaker, TensorFlow, PyTorch)
* Software Development & Automation (Python)
* CI/CD for Automated Workflows (Jenkins, GitHub Actions)
* Source Code Management and Best Practices (Git, GitHub, Gitflow, Bitbucket)
* Agile/Scrum Methodologies (JIRA, Confluence)
* Monitoring & Observability (AWS CloudWatch, Splunk)
* Application Development (React, ReactNative, Swift)
* Data Security & Compliance (GDPR, GxP)
* Containerization & Orchestration (Docker, Kubernetes)

**Professional Experience**

**Senior AI Platform Engineer**  
AstraZeneca – Macclesfield, UK  
*06/2022 – Present*

* Architected and deployed scalable AI Platforms leveraging AWS services (EC2, S3, Lambda, SageMaker) and IaC tools like Terraform, supporting over 250 concurrent AI and Data Science Projects.
* Collaborated with data scientists, engineers, and business stakeholders to create and develop optimized AI solutions for GxP production environments.
* Developed several Python tools and libraries to support our team's and customer’s day-to-day operations and automation.
* Redesigned the implementation of our Platform's AWS Service Catalog to support deployments to multiple project environments and allow for product versioning.
* Provided technical leadership and mentorship to a team of engineers, fostering skill development, collaboration, and encouraging best practice.

**Digital and Technology Solutions Apprentice**  
AstraZeneca – Macclesfield, UK  
*09/2018 – 06/2022*

* Architected, developed and deployed a Box → AWS S3 Integration allowing for syncing of resources and a way for exporting data out of our AWS environments.
* Integrated our AI Platform with the R&D Datalake, allowing data scientists to publish their outputs to a central location and avoid the time-consuming process of contacting the Data Asset team for reingestion and cataloguing.
* Completed 4 years of university study alongside a full-time employment rotating across several areas of the IT organisation to gain a breadth of experience and become a well-rounded engineer.

**Education**

**Master of Science in Artificial Intelligence and Data Science**

Northeastern University London  
Graduation: [2024]

**Bachelor of Science in Software Engineering**

Manchester Metropolitan University  
Graduation: [2022]

**Technical Skills**

**Programming Languages:** Python, Java, Bash, JavaScript, SQL  
**Cloud Platforms:** AWS (EC2, ECS, EKS, S3, Lambda, SageMaker, Service Catalog, DynamoDB)  
**Infrastructure as Code:** Terraform, Terragrunt, AWS CloudFormation

**Application Development:** React, React Native, Swift  
**Machine Learning Tools:** TensorFlow, PyTorch, Scikit-learn, SageMaker, neo4j  
**DevOps Tools:** Jenkins, Docker, Kubernetes, GitHub Actions, AWS CodePipeline

**Operating Systems**: CentOS, MacOS, Windows, AL2, SteamOS  
**Monitoring Tools:** AWS CloudWatch, Splunk

**Projects**

**Maximus**

* Designed, developed and deployed an AWS based AI Platform built from Terraform, allowing for seamless deployments and customisable configurations available to the entire enterprise.
* Consolidated pre-existing legacy AWS Platforms existing across the AstraZeneca estate into the Maximus platform.

**Covid NLP**

* Deployed an NLP tool, TERMite, as part of a project to accelerate the AstraZeneca-Oxford Coronavirus vaccine development, by processing large amounts of adverse event data produced from clinical trials.

**SageMaker Studio**

* Collaborated with business stakeholders, AWS Professional Services, and data scientists to deploy SageMaker Studio and integrate it into our AWS Platform.

**Model Deployment**

* Developed a solution to allow internally developed ML models to be deployed and accessed securely by external stakeholders such as research companies or universities. Inversely, it allows for these third parties to collaborate with AstraZeneca by onboarding their own ML models.