James Doran

Curriculum Vitæ

Summary

Machine Learning Engineer currently working at DXC Technology on the MLOps team. Work primarily involves developing Machine Learning models for clients and internal projects, and deploying to the cloud or local edge devices. Primarily utilising Azure and AWS MLOps accelerators, which are used to create and manage a Machine Learning solution in a DevOps manner. Has extensive experience with Python, and has also worked with SQL and MATLAB. Also has experience working with IoT, and with a variety of Data Sources including SQL, JSON, CSV. Work has also involved developing the AWS MLOps accelerator, leading a SCRUM team working on an ML solution for a client, and working with a team in leading the MLOps Azure training project for a new onboard of graduates to the team.

Work Experience

2021–2022 **Machine Learning Engineer**, *DXC Technology*.

- Worked as a Machine Learning Engineer on various ML projects within the MLOps team, on a variety of usecases including Computer Vision, Anomaly Detection, etc. Developing and deploying models to Accelerator.
- Worked as part of the Core European MLOps team to develop AWS MLOps accelerator, creating an DevOps solution to creating and managing a ML solution. Main areas of development were: ML Pipelines, Data Pre-processing, CI/CD Pipelines, Dashboard. This development process was utilising the Computer Vision usecase. The team was organised along the SCRUM framework
- Leading a POC project team for the SmartDCC account. This included taking on Scrum Master duties as well as Data Science responsibilities. This involved creating an ML solution (LSTM model for anolamy detection) utilising AWS Services,. This includes AWS Sagemaker, Glue, CodePipeline. The usecase was anomaly detection and made use of an Autoencoder model. Technical work mainly consisted of ML pipeline development, data pre-processing, model training. ScrumMaster duties involved creating the Jira project, creation, and upkeep of tasks in Jira, running daily stand-up meetings, and keeping track of task and project progress.
- Have also undertaken a leadership role within the team, supervising 2 team members.

2021-2021 **Graduate IOT Developer**, *DXC Technology*.

- Developing the Thingworx IOT Smart Factory demonstrator, using JavaScipt ingesting data from Simulated machines (hosted in a PostGreSQL database), calculating key metrics, and displaying in a dashboard.
- Assessing different IIOT tools for suitability to Smart Factory usecases and reference architecture.
- Developing Analytics Reference architecture for advanced Smart Factory capabilities.
- Leading team SCRUM team on project upgrading Smart Factory demonstrator

Education

University

2017–2020 **Physics with Astrophysics, BSc (Hons)**, *Northumbria University*, Newcastle Upon-Tyne, (1^{st}) .

An IOP accredited Astrophysics Bachelors degree. Completed in 2020. Including computing and programming (Python, MATLAB), and modules such as Quantum Mechanics, Non Linear Dynamical systems, Statistics, Thermodynamics, Solar Physics and Magnetohydrodynamics, Cosmology, etc.

2016–2017 Engineering Foundation Year, Northumbria University, Newcastle, First.

Foundation degree to develop mathematical and analytical skills required for degree level studies.

A-Level

2014-2016 3 passes in Mathematics, Physics, and Chemistry

GCSE

Skills and Competencies

- 3.5 Years **Python**.
- 1.5 Years Machine Learning.
- 1.5 Years **IoT**.
 - 1 Year JSON.
 - 1 Year **DevOps Inc. CI/CD**.
 - 1 Year Git/Version Control.
- 9 Months SQL.
 - 3 Years MATLAB.
- 9 Months JavaScript.
 - 3 Years LaTeX.

Professional Certifications

- 2022 Azure Al Fundamentals, Microsoft.
- 2022 Azure Fundamentals, Microsoft.
- 2021 Thingworx Fundamentals, PTC.

References

Available on request