

Morgan Lloyd Chorlton



Manchester, United Kingdom



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Personal:

Strong group worker with great customer service and communication skills. Works well independently, good at managing/ leading projects. Mainly self-taught programmer with over 7 years of object-oriented programming in a variety of languages including **Java, Python, PHP** and **Go**. Currently working with **Python, Terraform** and **AWS** both professionally and personally. In my spare time, I enjoy working with and creating software for a serverless architecture/ deployment. Over the past couple of years, I have been working very closely with **AWS Lambda** and **AWS Fargate** to take advantage of serverless architecture.

Education:

Year 1: (Unix Systems 87% A, Group project 76% A, Computer science with mathematics 75% A, Hardware and Networks 70% A, Software Design and Development 68% B)

Year 2: (Object Oriented System Development 66%, Algorithms Processes and Data 51 % Relational Databases and Web Integration 57%, Operating Systems and Language Translators 57%, Team Project 63%, Cyber Security 65%)

Year 3: (Final Year Achieved Upper Second-Class Degree)

Large Scale Software Engineering (67%)

Distributed Server and Client Systems (68%)

Major Study (Advanced Delivery System, 68%)

Artificial Intelligence (48%)

Advanced Web Programming (78%)

Technical Skills:

I am currently working with **Python, Java, Terraform** and **AWS**. I have been working with AWS both personally and professionally for the past 2 years and have a good knowledge of core services like **Lambda, S3, Dynamo DB, Fargate** and **VPC**. I have a real passion for working with serverless technologies and cloud infrastructure.

Hobbies and Interests:

In my spare time, I enjoy creating websites, this is where my love for programming began. I also enjoy cycling and working with computers (both hardware and software). In the past, I have cycled with Team GB racing at the National Cycling Centre. I also enjoy working with mobile apps and developing applications and systems in my spare time. Some functional (e-commerce site) and some fictional, Over the past year, I have been working on a custom e-commerce site for my partner's business.

Industry Experience:

Software Engineer Datalex (2020–current):

During this role, I have worked on a variety of projects from building a promotions system for airline ticketing, to working on creating a new product from scratch introducing AI/ Machine Learning to airline pricing. I have been working with **AWS, Java, Python** and **Terraform**.

After 6 months working at Datalex I moved onto a new POC (proof of concept) project. This project was a venture into **AI** and **Cloud Computing** to dynamically price flight fares. From working on this project I was able to work in a small team to rapidly prototype and develop the product. I was involved in all aspects of the project from making decisions on what cloud services to best suit the product to fully designing and developing custom pipelines to ingest data and train and deploy machine learning models.

After the project has progressed past the POC phase and was being transitioned into a product, we needed to design and develop a robust solution for storing and processing incoming customer data ready for the **ML Models**. This work involved working with an external contractor to guide us on best practices, I volunteered to lead this project and worked with the contracted company side by side to develop the **Data Ingestion pipeline**. This sub project helped me get more exposure to more AWS service (**Fargate, SQS, DynamoDB, Glue and Athena**)

As the project evolved, we encountered issues with managing the variety of resources in AWS, this drove me to upskill personally in DevOps particularly terraform my own time, I chose to do this as we needed to find a way to deploy and replicate our cloud infrastructure across multiple AWS accounts. This exposure to cloud infrastructure/ Terraform was also useful in other parts of the company, I helped guide other teams to migrate from on prem servers to the cloud using terraform.

I recently worked on migrate our existing **Java API** that was not performing well with the serverless architecture to **Python**, this led to huge performance improvements for the project reducing the response times by over 40%. The migration also halved the costs for real time inference via the API. The migration also allowed me to go more in depth by introducing new AWS services into to product (**CloudWatch Alarm, X-ray Tracing and Application-Autoscaling**)

More recently I have been tasked with designing and implementing a reporting dashboarding system, this system will take the generated data from real time customer inference through the product and give the customer the ability to project how dynamic pricing will increase revenue for the airline.

I have also been working on a solution to help improve internal documentation, I worked on designing and developing a AI RAG (retrieval-augmented generation) solution to add a chat-gpt like search solution to all our internal documentation. I developed this using a mixture of AWS services including **ECS, Kendra and Bedrock**. I did most of this in my spare time as I wanted to upskill in new technologies and learn some new AWS services.

References:

Datalex UK

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