James Page

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EXPERIENCE

Software Engineer – JPMorganChase **2023 – Present**

- Working on **MLOps Platform** for CIB Applied AI/ML teams which is now adopted as the firmwide MLOps solution for authoritative training and serving of ML models.
- Full stack engineering, using **Terraform** to deploy our platform on **AWS**, **Golang** backend, occasional work on **Svelte** frontend and **Python** Lambda functions.
- Notably designed, implemented and maintained a redesign of the metadata store data model for better consistency and extensibility in **DynamoDB** with Go backend serving data via a **GraphQL** API.
- Worked on features such as: Model Monitoring, Pretrained Model support, Data integrations with other internal platforms and security features like RBAC protection on APIs.

Software Engineer Intern – JPMorganChase **June – August 2022**

- Member of Applied AI Engineering team, working on scalable implementations of firm wide AI/ML problems.
- Contributed to the design and implemented a data pipeline to ingest and process batches of data for use as inputs to a ML model.
- Implemented in **Python** deployed into Lambda functions triggered and outputting to Kinesis streams on **AWS**.

Software Developer Intern – Cognitran **July – September 2021**

- Investigated and built a new feature to allow users to efficiently query for unique IDs matching a set of unindexed features in a 8 million entry **DynamoDB** database.
- Designed an AWS Lambda function to maintain an **Elasticsearch** index with entries from DynamoDB
- Added new queries to existing service to access this feature via a REST API using **Java**.

EDUCATION

University of Warwick **2019 - 2023**

MEng Computer Science - First Class

Studies covering theory from algorithms & data structures to game theory and computational learning, applied experience in machine learning techniques including computer vision and computational biology, also including independent projects covering research and application of AI/ML in different areas.

Projects:

Master's Research Project – "Human-like" Musical Performance Generation

- Researched and implemented preprocessing techniques using clustering for pattern recognition in musical sequences and implemented new tokenization techniques for musical representation.
- Implemented & tested memory efficient transformer attention models to 'translate' musical scores to performances consisting of 20,000+ token sequences while maintaining structure.

Undergraduate Dissertation – Efficient Allocation of Renewable Energy Sources

- Combination of Regression Model and Genetic Algorithm optimization techniques to model weather effects of wind power and find an optimal set of locations across the UK to maximise efficiency.

SKILLS

- **Go:** Primary language use in day to day work, building APIs and forwarding services.
- **Python:** Used in research/data science capacities & building production data pipelines and APIs.
- **Terraform:** As part of MLOps platform developed terraform modules used by clients to pave infrastructure as well as maintaining and deploying core infrastructure.
- **AWS:** Worked on many projects deployed in AWS, primarily using Lambda Functions, EKS, DynamoDB, S3