**James Page**

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**WORK EXPERIENCE**

**Software Engineer Program Intern – JP Morgan Chase June – August 2022**

* Member of an Applied AI Engineering team (mix of software engineers and data scientists) – working on scalable implementations of firm wide AI/ML problems,
* Contributed to design discussions and implemented data validation pipeline and associated test.
* Designed and deployed cloud solution to AWS Lambda and EKS for real world AI problem, using Terraform, Helm and FastAPI.

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

* Took charge in investigating and designing a new feature to allow users to query for ids based on a set of features in a short time across an 8+ million vehicle dataset.
* Designed an AWS Lambda function to update Elasticsearch index with entries from a large scale DynamoDB system.
* Added query handling functionality to existing in development service allowing for querying via REST endpoints.

**Technology Early Insight – JP Morgan Chase April 2021**

* Developed REST API endpoints using python.
* Modelled a large dataset using TensorFlow in Python to predict fraudulent transactions.

**Software Engineering Work Experience – ISIS Neutron and Muon Source July 2018**

* Implemented a web interface for monitoring source data with python flask.
* Worked with an Apache Kafka cluster data source.

**EDUCATION**

**University of Warwick September 2019 - Present**

**MEng Computer Science**

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.

**St Bartholomew’s School July 2019**

**SKILLS & PROJECTS**

**Skills:**

* + **Python** – Professional experience in writing production ready code, as well as experience rapidly prototyping ideas in research project contexts – use cases including data pipelines, API design and machine learning.
  + **Java** – Professional development experience working on a large spring project, as well as integration with AWS.
  + **Spark** – Understanding and application experience of distributed processing and designing data pipelines for large data sets.
  + **SQL** – Solid understanding of SQL in use from database design to query systems.

**Projects:**

* + **Group Research Project – “Human-like” Musical Performance Generation (In Progress)**
    - 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.
  + **Research Project – Efficient Allocation of Renewable Energy Sources Under Uncertainty Across the UK**
    - 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.
    - Independent research, implementing algorithms and techniques from academic papers.