Alastair Hamilton

+44 0770 775 1450 | *alastair.amhamilton@icloud.com* | *Dual British-Irish Citizenship*

SUMMARY

Having spent the past two years building a data science function from scratch at a successful sustainability start-up, I'm now looking for a new challenge where I can learn about and enjoy the field of ML and AI among a group of like-minded colleagues. Outside of work I enjoy playing my piano, gaming and whatever niche hobby I have at the time.

EDUCATION

University of Edinburgh   June 2017
BSc Theoretical Physics   *2:1 (69%)*

EMPLOYMENT

Altruistiq | Sustainability   *May 2022 – Present*

Senior Lead Data Scientist

- Semi-automated PDF data extraction using a pipeline of models for clustering, grouping, multi-label multi-class classification and text extraction deployed in AWS Sagemaker.
- Designed the level 4 MLOps architecture including: experimentation and model benchmarking; model versioning; model release; data versioning using a feature store; data pipelining; and model monitoring and automatic model retraining. This was done using MLflow, AWS Sagemaker, Github Actions and Metabase.
- Developed and led the code development for my team's codebase and internal tooling, including all DevOps for library releases across the company and the terraform for any infrastructure required.
- Developed and deployed a ChatGPT-based Streamlit app to enable analysts to navigate complex PDFs in multiple languages using a privately hosted Llama-2-13b model for data privacy.

Lead Data Scientist

- Worked with product managers to break down complex data science and ML project requirements into a clear backlog that could be managed in sprint cycles by non-technical managers and be prioritised against other ongoing company projects.
- Developed and deployed a vector-based retrieval algorithm using BERT embeddings for automating the tagging of customer data.
- Researched representing the current tag hierarcy as a knowledge graph, comparing an RDF and Apache TinkerPop property graph deployed on AWS Neptune.

Lloyds Banking Group | Financial Services   *Sep 2018 – May 2022*

Data Scientist

- Developed a novelty detection algorithm in Azure using the CluStream framework as part of the bank's insider criminal threat detection project.
- Authored and supported a Data Science Masters project at the University of Edinburgh, focusing on utilising Bayesian Neural Networks for anomaly detection.

Cognitive Data Science Manager

- Developed and embedded a topic modelling tool using unsupervised LDA topic models for identifying emerging themes in customer vulnerability documents, resulting in successful identification of OOS climate change risks.

BP | Oil & Gas   *Sep 2017 – Jun 2018*

Supply and Trading Market Intelligence Analyst (Graduate)

PUBLICATIONS

Thompson, S., Teixeira-Dias, F., Paulino, M., & Hamilton, A.   *2022*
Predictions on multi-class terminal ballistics datasets using conditional Generative Adversarial Networks.
Neural Networks, 154, 425-440.

Thompson, S., Teixeira-Dias, F., Paulino, M., & Hamilton, A.   *2022*
Ballistic response of armour plates using Generative Adversarial Networks.
Defence Technology, 18(9), 1513-1522.