

Alastair Hamilton

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

EDUCATION

University of Edinburgh

BSc Theoretical Physics

June 2017

2:1 (69%)

EMPLOYMENT

Altruistiq | Sustainability

Senior Lead Data Scientist

May 2022 – Present

- Semi-automated PDF data extraction using a pipeline of models for clustering, grouping, multi-label multi-class classification and text extraction.
- Developed a ChatGPT-based tool to help analysts navigate complex PDFs in multiple languages using a privately hosted Llama2 13b model for data privacy.

Lead Data Scientist

- As the first data science hire scoped out a cross-company data science project backlog and implemented our MLflow, Sagemaker, Github Actions and Metabase MLOps and model monitoring stack, including all infrastructure required on AWS using Terraform.
- Developed a vector-based retrieval algorithm using BERT embeddings for automating the tagging of customer data.
- Researched representing our tag hierarchy as a knowledge graph, comparing an RDF and Apache TinkerPop property graph deployed on AWS Neptune.

Lloyds Banking Group | Financial Services

Data Scientist

Sep 2018 – May 2022

- Developed a novelty detection algorithm 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

Supply and Trading Market Intelligence Analyst (Graduate)

Sep 2017 – Jun 2018

PUBLICATIONS

Thompson, S., Teixeira-Dias, F., Paulino, M., & Hamilton, A.

Predictions on multi-class terminal ballistics datasets using conditional Generative Adversarial Networks.

Neural Networks, 154, 425-440.

2022

Thompson, S., Teixeira-Dias, F., Paulino, M., & Hamilton, A.

Ballistic response of armour plates using Generative Adversarial Networks.

Defence Technology, 18(9), 1513-1522.

2022