Rory Scott - CV

Employment

PA Consulting

Managing (Principal) Consultant: Data Strategy, Science & Engineering | February 2022 - Present

Leadership and hands-on engineering of data science and AI projects and commercial propositioning across multiple markets.

Technical lead:

- Hands on development of supervised and unsupervised Machine Learning (ML) (python+scikit-learn) for national security in government (some details available on request).
- Generative AI proposition building and Proof of Concept (PoC) design (video analytics, advanced NLP, more): hands on development of multiple PoCs using AI tooling for novel use cases. This includes an automated document analytics pipeline which can rank and grade documents based on custom and modular instruction sets.
- Gigabyte-scale predictive maintenance (aws+python) for a medical robotics company, with models and implications presented to C-Suite on conclusion. The team I led developed a novel ML model and accompanying libraries in python to classify surgery sessions with critical faults present in specific gears of the surgical robotic units.
- Data platform engineering (python+airflow+sql) in central government: I managed a blended team of contract and permanent data engineers running a transformation of hundreds of data pipelines for a central government department.

Commercial successes: Key contribution to ~£50m of data science and analytics sales in the last two years (10% sale attribution for a single £40m sale). Lead author for the Data Science and AI strategy for PA Consulting for 2024-5.

Further details are available on request. Note: "Managing Consultant" sits above Principle and below partner grades, and is the most senior technical implementation grade at PA consulting whilst also having financial targets.

Freelance | Norwegian Refugee Council

Predictive Analytics Data Lead Consultant | September 2021 to March 2022

Flexible posting acting as interim lead within an initiative to predict migration across Ethiopia using open-source data and machine learning. My role was to set direction on the project's data focus and technical architecture.

Department for International Development / Foreign, Commonwealth & Development Office

Multiple Roles | September 2019 to August 2021

Head of Data Science, Open Source Unit | March 2021

Specialisms: Applied AI and Data Science

The OSU is an interdisciplinary division utilising disparate high volume open data to guide the UK Government's decision-making. In this role, I acted as the strategic owner and principal technical architect for data science within this division.

OSU created OS-Insight, an insights platform processing millions of texts and integrating numerous data APIs, utilised by many government departments for timely open-source data analysis. Hosted on AWS with CloudFront CDN, serverless back-end, it employs Python NLP and AI, Vue JS front end, and Terraform IaC.

In my role, I strategised for its growth, oversaw new feature development by delivery partners, and researched new features like graph databasing and enhanced NLP. I managed a data science team, directing projects like domain network analysis and video entity extraction, and devised a data strategy, incorporating a data engineering function.

Hands on contribution included deploying and integrating Apache Superset on AWS via Terraform for easy dashboarding without vendor lock-in.

Head of Open Data and Transparency | September 2019

Specialisms: Technical Architecture and Product Management

Leading an international digital team and owning the strategy, digital products, data architecture and technical infrastructure to enable data transparency for the FCDO. In addition to leadership, this role required executive responsibility as a product manager in the early months before hiring and delegating it, plus technical architecture throughout.

FCDO publishes structured data detailing billions of pounds of foreign aid and humanitarian assistance spending, bringing together complex financial, operational and strategic data from multiple systems and government departments. My team sourced the data, maintained pipelines, scheduled publication and quality control, and presented the resulting data in DevTracker, a citizen-facing service reaching over ten thousand users a month from over 120 countries.

Notable projects included constructing a python NLP text analysis pipeline for document evaluation which allowed us to defend DFID's 1st class rating, given by Publish What You Fund, as well as prototyping a graph database (Neo4J) to analyse global delivery chains from data of over ten million projects published by over a thousand different organisations, allowing a novel identification of funding flows up to seven levels onward subcontracting.

Open Data Services Cooperative

Co-Director; Policy & Data Analysis | December 2016 to October 2019

Consulting mostly with UN and government clients on data standards adoption and open data use. Primarily undertook data mapping, transformation, and strategy work, and embedded within technical teams to develop technical architecture. Notable clients include United Nations High Commissioner for Refugees, the Department for International Development, the Foreign & Commonwealth Office.

International Aid Transparency Initiative (Development Initiatives)

Business & Data Analyst + Software Developer | June 2015 to December 2016

A highly interdisciplinary role, dealing with high-level clients, messy datasets, and international data standards, and conducting data analysis in R and Python. Managed relationships with UN agencies including UNDP, UNOPS, UNICEF, UNHCR, UNOCHA, UNCDF, WHO, UNAIDS, and more.

Apak Group

Software Developer | December 2014 to June 2015

A leading automotive wholesale finance software provider to some of the world's largest financial institutions and vehicle manufacturers. Java, Spring, Hibernate. A notable impact was developing a generic and extensible mocking framework for unit and integration testing, saving substantial developer time.

Education

University of Birmingham

B.A. Political Science & Philosophy with Computer Science: 1st | 2010 to 2014

Overall grade and computer science average both 1st Class; awarded prizes for the best dissertation in the Department of Political Science and International Studies, and outstanding overall achievement from a philosophy student. Also established a student-run academic journal, and also published an article on AI ethics in my first year of study.

Wells Cathedral School

2005 to 2009

A-levels in Economics & Business Studies, English Literature, and Religious Studies. Head Prefect 2008-09.

Public Work

[Forthcoming] Quantum Playground, Many Studios, Glasgow

I'm working on technical infrastructure for an exhibition which curates art relating to quantum mechanics. So far I've helped with sonification and an interactive exhibit guide.

Small previews of both of these can be found on my About page.

Note that as of March 2025, these are both still works in progress.

Open Data Institute Lunchtime Lecture 2017: Can't find the right code? Explain yourself!

I examined the balance between traditional data categorisation methods and modern NLP approaches to data analysis. Using Latent Dirichlet Allocation (LDA), I compared information density in the text fields of several structured open data sources (Open Contracting, IATI, 360Giving) against free-text descriptions in Yelp reviews to demonstrate how machine learning could extract meaning without rigid codelist constraints.

My research challenged conventional wisdom in data standardisation: rather than forcing upfront categorisation through predefined codelists and taxonomies, I argued that rich descriptive text contained latent semantic information that modern AI techniques—including LLMs and embeddings—could effectively organise and interpret.

My approach combined traditional open data expertise with modern AI methodologies, illustrating how strategies like LDA, vectorisation, and nowadays LLM utilisation could transform fields still reliant on manual categorisation systems into more flexible, powerful information ecosystems.

Watch the recording on YouTube: ODI Lunchtime Lecture: Can't find the right code? Explain yourself!

Publication: Journal of Cosmology 2011 | Can Machines be Murdered?

Published in my first year of study at the University of Birmingham. Guest edited by Sir Roger Penrose. Note: Web design was *not* my responsibility, but I think it will age well.

Paper can be accessed here: https://thejournalofcosmology.com/Consciousness158.html

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