Edward Stevinson

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Professional Experience

Iris - Research Scientist Intern
Jul 2022 - Oct 2022
- Research focused on leveraging knowledge graphs to update word embeddings in the scientific domain concluding with presenting our paper at an AACL workshop on information extraction.

Napo - Senior Software Engineer
Apr 2022 - Sep 2022
- Python backend developer for the fast growing pet insurance startup. As a member of the growth team, grew the customer base from 1k to 10k over six months.

Upside Ltd - Lead Data Scientist
Nov 2020 - Feb 2022
- A workflow analytics platform that helps empower teams by surfacing key metrics and highlighting trends, giving software teams more autonomy and flexibility. My work included creating:
- The Python analytics engine calculates the metrics that underpin the platform.
- Data science pipelines built in Dagster that consume data from the analytics engine and produces the models used by the platform.
- The analytics API used to power customer-facing analytics visualisations using Cube.

Eigen Technologies - Solutions Engineer
Jun 2019 – Nov 2020
- A research-led artificial intelligence company that automates the extraction and classification of information from documents, specialising in small training sets.
- Developed a tool for tokenizing clauses within contract documents. A model was then trained using these sections to produce a hierarchical representation of the document.
- Productionised this tool for a large client using Airflow as an orchestration mechanism to assist the sectioning and extraction of large volumes of documents.
- Built a system to manage the company's ML lifecycle to make model development less costly, achieved by using a custom setup comprised of Pachyderm, MLFlow, Cookiecutter and AWS.

IBM - Software Developer
Jun 2017 – Jan 2019
- Java developer for IBM's i2 brand that produces investigative analysis software for law enforcement and intelligence agencies worldwide.
- As a server-side developer, I was part of a team that built a web app version of an industry leading desktop application, working of the graph data model.

Le Wagon (2017)
- Developer bootcamp using a Ruby, JavaScript, CSS and html stack.

Work experience:
3Space (2015), UBS AG (2012), Royal Bank of Scotland plc (2010), Southampton University (2009), Atkins Oil & Gas (2008)

Publications

Conferences

Hoelscher-Obermaler, J, and **Stevinson, E**, 2022, Leveraging knowledge graphs to update scientific word embeddings using latent semantic imputation, Workshop on Information Extraction from Scientific Publications at AACL-IJCNLP 2022

Education

Imperial College London

2022-   Imperial-X PhD scholarship in Safe AI researching the verification and repair of neural networks under the supervision of Professor Alessio Lomuscio

University of Edinburgh.
Artificial Intelligence (MSc) - 1. Distinction

2015-2016   Machine learning specialism with a focus on multi-agent systems, game theory and theory of mind.

Trinity College, Oxford.
Engineering, Economics and Management (MEng) - 2.1

2011-2015   Specialised in machine learning, robotics and algorithmic game theory.

Dulwich College, London.

2006-2011   A-levels: 4 A*; GCSE: 11 A*, 1 A

Technical Skills

- 6+ years professional coding experience.
- 4+ years professional machine learning experience, predominantly scikit-learn and tensorflow.
- Experience deploying solutions using Docker, Airflow and Dagster.
- Utilise data science best practices and industry-standard tools such as Cookiecutter, Jupyter, ML Flow, Kafka and Pachyderm.
- Maintain strict development best practices surrounding testing, versioning, and Agile.
- Strong mathematical background with modules covering reinforcement learning, supervised & unsupervised probabilistic modelling, neural networks, sampling and graph theory.
- Experience in web development using Java, Django, Flask and Rails frameworks.
- Mentor programming to underrepresented groups in coding at Codebar workshops.
- A keen interest in novel projects. From Upside, back through IBM patent submission groups to the 2010 HSBC Young Enterprise Scheme - all have involved novel products.
- Strong writing skills built upon in my management studies, dissertations and grant proposals.

Projects

2020   **Forfit**

Developed the backend for a challenge-based fitness app using Django.

2019   **AnimalAI**

Submission that used mlagents-learn to train an agent in a number of animal cognition tasks in a Unity environment using reinforcement learning methods.

2019   **Credible Choice**

Developed the API in Go for a real-time, accurate register of Brexit views to allow UK citizens to express their opinions and raise money for charity.

2018   **Towards Fair AI: tackling bias in predictive probabilistic models**

Essay submission for GeneralAI's 'mitigating the risks of the AI race' competition.

2017   **Unpolarise**

Developed an app to reduce the echo chamber effect by summarising the news you consume and challenging your newsfeed bias with recommendations outside your conversational sphere.

2016   **Utilising Policy Types to Achieve Effective Ad Hoc Coordination**

Research dissertation that involved building an autonomous agent able to maximise payoff in multi agent systems with no mechanisms for prior coordination.

2015   **Experiments in Creating Social Value: Exploration of the Meanwhile Use Industry**

Research dissertation on the use of meanwhile leases to turn empty commercial property into a solution to tackle urban decline and increase community output.