



Jake Cowton

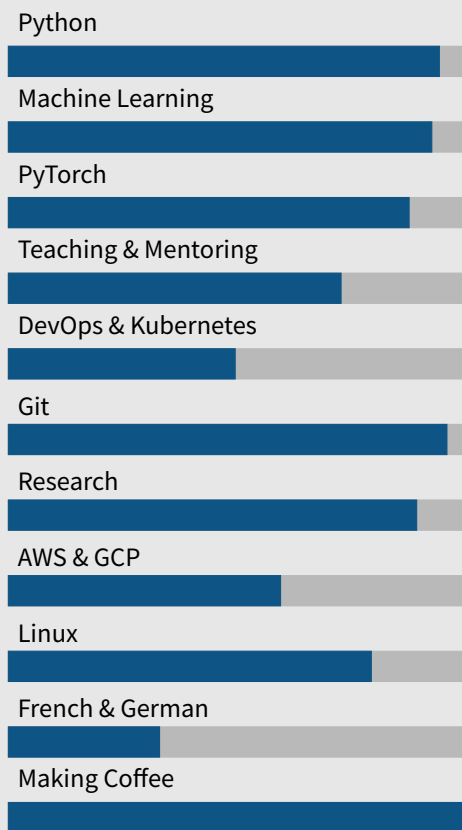
Machine Learning Engineer

- Newcastle, United Kingdom
- <https://jakecowton.com>
- jakecowton@hey.com

About me

I am a Machine Learning Engineer with a background in software development and a specialisation in deep learning. Whilst working towards my PhD, I co-founded two startups from which I learned value of precise time management. I pride myself on good communication and believe a business is only as strong as its processes, especially when it comes to version control. Though my background is in computer vision, time series analysis, and Natural Language Processing, my interests also lie in DevOps/MLOps, and privacy-preserving AI.

Skills



Libraries & modules I have used extensively:

transformers, multiprocessing, pandas, scikit-learn, numpy, matplotlib & scipy

Interests

I am interested in finding new and challenging applications of deep learning that push the boundaries of state-of-the-art solutions in terms of both ML and DevOps. Outside of work, I am a specialty coffee enthusiast, a purist home cook, and I'm always looking for new podcasts on anything from current affairs to Lord of the Rings.

Education

- 2016-2020 PhD Candidate in Machine Learning Newcastle University
Saving Our Bacon: Applications of Deep Learning for Precision Pig Farming (Computer Vision, Multi-Object Tracking, and Time Series Analysis)
- 2011-2015 BSc Computer Science Northumbria University
Specialising in Artificial Intelligence

Experience

- Mar'20 - Now Lead Data Engineer Welcome AI, CA, USA
I am responsible for the mass collection and validation of data through at-scale web scraping and the overall data pipeline. I have designed and trained custom transformer-based models for the purpose of extracting rich information from raw, unstructured data.
- Feb'20-Mar'20 Senior Research Associate Northumbria University, UK
I worked on the development of a method for cancer detection using deep learning that requires only a smartphone. We localised the blood cells in an image, then segmented and classified the different blood cells to determine if there are signs of cancer.
- Oct'18-Now Co-Founder & CSO Fair Custodian, UK
Along with my responsibilities as Co-Founder, I headed up the research and implementation of our intellectual property. For example, using AWS Lambda for scalability and SNS/SQS for decoupled communication, I developed a pipeline to extract the key information from our customers emails using machine learning and NLP so that it could be presented to them in a concise format.
- Oct'17 - Now Co-Founder Research Analytics, UK
Research Analytics, an AI consultancy, was my first startup. My responsibilities ranged from business management and product planning to training and deploying machine learning models. For one project, we designed and implemented a camera-based crowd analytics system, running on an edge device, whilst maintaining people's privacy.
- Jul'15 - Oct'15 Software Developer CloudTrade, UK
I worked as a C# developer on an internal project designed to maximise productivity and make the lives of staff as easy as possible. My primary responsibilities were implementing an effective git workflow, liaising with the team to plan new features, and ticket resolution.
- Jun'13 - Aug'14 Software Developer (Technical Student) CERN, Switzerland
At CERN, I was a developer on an open-source, digital library framework, built on Flask. I developed the disaster recovery module for the system that allowed simple destroy and restore functionality.

Publications

- 2019 J. Cowton, I. Kyriazakis, J. Bacardit IEEE Access
Automated Individual Pig Localisation, Tracking and Behaviour Metric Extraction Using Deep Learning
- 2018 J. Cowton, I. Kyriazakis, T. Plötz, J. Bacardit Sensors
A Combined Deep Learning GRU-Autoencoder For The Early Detection Of Respiratory Disease In Pigs Using Multiple Environmental Sensors
- 2018 J. Carrick et al. Journal of Flood Risk Management
Is Planting Trees The Solution To Reducing Flood Risks?
- 2015 J. Cowton, L. Yang UKCI
A Smart Calendar System Using Multiple Search Techniques
- 2015 J. Cowton et al. Institute of Physics
Open Data And Data Analysis Preservation Services For LHC Experiments