

# Harry Baines

## Machine Learning Engineer

Analytical and performance-driven professional with 5 years of experience across the data science and software engineering domains. Proficient Python programmer with experience working on varied datasets and application stacks using relational and non-relational databases. Enthusiastic about developing and deploying high-quality production systems and finding insights in large datasets using machine learning techniques.

### WORK EXPERIENCE

#### Data Scientist

October 2020 – June 2022

Yordas Digital, Lancaster

- Implemented and deployed machine learning-based time series forecasting models to predict the likelihood of regulatory data updates within the next 3 months, reducing time spent on weekly data checking by 90%.
- Created automation scripts with Selenium and Celery to scrape data from regulatory websites, resulting in a 20+ hour reduction in manual data checks per week.
- Developed Python and Flask template repositories using best practices and static analysis tools, enhancing developer productivity and streamlining development workflows.
- Conducted a statistical analysis of cheese production data for a local manufacturer, provided data-driven insights and recommendations to optimize cheese yield.
- Supervised two student internship projects involving general data scraping and NER for detecting substance names, conducted daily meetings and weekly code reviews using the Scrum methodology.
- Developed a full-stack application with Django to assist regulatory experts in authoring Safety Data Sheets (SDS), reducing authoring time by over 50%.

#### Data Scientist Internship

June 2020 – September 2020

Yordas Digital, Lancaster

- Implemented smart search functionality using NLP techniques in Python across a database of 20K+ complex chemical phrases, integrated into a live SDS authoring application.
- Identified project requirements and received iterative feedback from software engineers and regulatory experts in an agile fashion.

#### Full-Stack Software Engineer

June 2018 – June 2023

Cassidy and Ashton Architects, Preston

- Designed, developed and deployed a full-stack timesheet application (PERN stack) to facilitate entry and management of time records and employee data for 70+ employees. Reduced manual timesheet paperwork by 100% and saved 20+ hours per week of manual data entry.
- Transformed employee timesheet data into visually appealing and customisable data visualisations and pivot tables, providing insightful and actionable information to directors and project managers.
- Increased transparency and accountability by building interactive dashboards for project managers to monitor performance of employees against agreed fees for 13K+ projects.
- Migrated Heroku deployment to a cost-effective deployment strategy leveraging Docker containers, streamlining the deployment workflow, resulting in a deployment cost reduction of over 90%.

### CONTACT

07949 443583

[harryb0905@googlemail.com](mailto:harryb0905@googlemail.com)

[harrybaines.net](http://harrybaines.net)

[linkedin.com/in/harryb0905](https://www.linkedin.com/in/harryb0905)

[github.com/harrybaines](https://github.com/harrybaines)

### SKILLS

Machine Learning  
Natural Language Processing  
Statistical Modelling  
Productionizing Applications  
Data Engineering  
Data Visualization

Python (numpy, pandas, seaborn, sklearn, pytorch, huggingface, Selenium, Flask, Django, Celery, Streamlit)  
SQL (Postgres, MySQL, Redis)  
Docker  
Jupyter Notebooks  
Git/GitHub  
Continuous Integration and Delivery  
GCP

### EDUCATION

#### Lancaster University

MSc (Hons) Data Science (Distinction)  
October 2019 - September 2020

Thesis: Enhancing Phrase Retrieval for Safety Data Sheet Authoring

#### Lancaster University

BSc (Hons) Computer Science (First)  
October 2016 - June 2019

### AWARDS

- Mathematics for Machine Learning Specialization, Coursera (2022)
- Machine Learning Scientist Track, DataCamp (2022)
- Data Science Master's Scholarship (2019)
- First Class Degree Scholarship (2019)
- Deep Learning Specialization, Coursera (2019)
- The Complete Web Developer in 2018: Zero to Mastery (2018)
- Undergraduate Commendation (2017)
- A-level Computing Award (2016)
- Bronze and Gold Duke of Edinburgh Awards (2013, 2016)