

Harry Baines

Full-Stack Software Engineer

Analytical and performance-driven professional with 5+ years of experience across the software engineering data science domains. Proficient programmer with experience working on varied application stacks with relational and non-relational databases. Enthusiastic about developing and deploying high-quality production systems.

Experience

Software Engineer June 2018 – Present

Cassidy and Ashton Architects, Preston

- Designed, developed and deployed a full-stack timesheet application (PERN stack) to facilitate entry and management of time records, projects and clients for 70+ employees. Reduced manual timesheet paperwork by 100% and saved 20+ hours per week of manual data entry.
- Increased transparency and accountability by building interactive dashboards for project managers to monitor performance of employees against agreed fees for 13K+ projects.
- Transformed employee timesheet data into visually appealing and customisable data visualisations and pivot tables, providing insightful and actionable information to directors and project managers.
- 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%.

Software Engineer / Data Scientist October 2020 – June 2022

Yordas Digital, Lancaster

- Developed a full-stack application with Django to assist regulatory experts in authoring Safety Data Sheets (SDS), reducing authoring time by over 50%.
- Developed Python and Flask template repositories using best practices and static analysis tools, enhancing developer productivity and streamlining development workflows.
- 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.
- 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%.
- 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.

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.

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 github.com/harrybaines

Skills

Programming Languages

Python, JavaScript, TypeScript, SQL, HTML/CSS

Libraries & Frameworks

React, Next.js, Express.js, Django, Flask, FastAPI, Celery, Selenium, Tailwind

Databases

Postgres, MySQL, Redis, sqlite, Firebase, Supabase

Tools & Platforms

Git, GitHub, Heroku, Vercel, Docker, Figma, Jupyter Notebooks, Streamlit, huggingface

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

Thesis: Implemented a novel, declarative programming language for smart contracts on Hyperledger Blockchains.

Awards

- 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)