Mitchell Murphy
Lead Data Scientist

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Experience

Lead Data Scientist
Motorway
London, UK
06/2022 - present

- **Recommender systems**: Built production ML pipeline for implicit rating and pointwise ranking models for vehicle auction. Increased bids/user by 9% and MAP@10 by 16%. Implemented using Scikit-learn, XGBoost and VertexAI.
- **Team scaling and efficiency**: Built exploratory data science team of 4 people for the product department. Increased planned item delivery rate by 35%. Achieved using streamlined agile ceremonies with Jira.
- **Project management**: Led prediction, inference, engineering and analytics projects. Enabled 20+ new feature launches with data-driven evaluation.

Data Scientist
Motorway
London, UK
04/2021 - 06/2022

- **Product analytics**: Collaborated with business stakeholders to quantify impact of new and existing features. Developed dashboarding standards for OKR, KPI and feature tracking used by data analysts. Implemented with Hex and Looker Data Studio.
- **Analytics engineering**: Built data models for new features, staging to production. Enabled exploratory data analysis and feature tracking. Implemented using Stitch, Jinja, SQL and dbt.
- **Machine learning**: Developed data cleaning, feature engineering and prediction model pipeline for vehicle pricing using Scikit-learn and XGBoost. Reduced MAE by 15%.
- **AB testing:** Designed Frequentist and Bayesian experiments, creating reports for non-technical stakeholders to make data-driven rollout decisions.

Data Scientist
Footfalls, UK
12/2017 – 04/2021

- **Machine learning**: Built classification and prediction model pipelines to predict pressure applied to smart textiles. Built using SciPy, Numpy and Scikit-learn.
- **Automation:** Templated data requirement docs and end-to-end ML framework, reducing project completion time by 10%. Built using cookiecutter and Jupyter.

Data Scientist
Spotlight Data, UK
01/2017 – 11/2017

- **Natural language processing**: Created NLP algorithms for document labelling and grouping for client document data lakes. Built using NLTK and SpaCy.
- **Data visualisation**: Created 3D visualisation pipeline and info-visualisation deck, enriching client POV pitch to win place in Fortune 500 European conference. Built with R and Plotly.

Projects

[Sidekick](#)

- **Recommender systems**: Built webapp recommending warm-up routines for custom CrossFit workouts. Built using Flask, Heroku, NetworkX, Pandas, PostgreSQL and Python.

[Python boilerplate](#)

- **DataOps and MLOps**: Created template repository for data science projects, implementing data science and ML best practices. Built using Cookiecutter, Make and Python.

Education

MSc Financial and Computational Mathematics
University of Nottingham, 1st
10/2015 – 01/2017

- **Relevant modules**: Scientific computing, statistics, computational applied mathematics, time series forecasting.
- **Extra-curricular**: Automated user feedback reporting for business sim module in Pharmacy department. Improved performance from 5th - of 10 teams - to 1st for trial team. Built using Jupyter, BS4 and Seaborn.

BSc Finance and Investment
University of Brighton, 1st
09/2011 – 08/2014

- **Relevant modules**: Game theory.
- **Extra-curricular:** Won team national and international university trading competitions, supervising 20+ student traders in trading society.

Skills

Agile, dbt, GCP (BigQuery, Data Studio, Vertex), Git, Hex, Jupyter, Numpy, Pandas, Python, Scikit-learn, SQL, XGBoost