

JACK LEITCH

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EXPERIENCE

Olive Ai

July 2022 – Present

Machine Learning Engineer

Boston, MA

- Designed and implemented architecture, supporting thousands of API calls daily, to automate prior authorizations reducing decision time by an average of 10 days
- Optimized ML training pipeline by decreasing time to process millions of medical documents from 20 hours to 30 minutes by implementing efficient ETL pipelines in Databricks using PySpark
- Built a highly scalable NLP feature generation pipeline using FastAPI and Azure Kubernetes Service to be used by other core engineering teams
- Developed and maintain internal-use Python packages for data processing, code generation, and feature computation to add major functionality to AI products

IAAD-UK

Feb – Jun 2021

Machine Learning Engineering Consultant

Remote, USA

- Built an end-to-end license plate recognition system achieving 94% accuracy
- Developed using TensorFlow and deployed on AWS ECS via a dockerized FastAPI endpoint
- Reduced computing costs from MVP by 46% by cutting image processing time by 67%

RSA Insurance Group

Jun – Aug 2019

Data Science Intern

Horsham, U.K.

- Forecasted motor insurance claims using time series methods (ARIMA) in R
- Incorporated 3rd party weather data into the model to improve short-term forecasts by 32%
- Integrated R-based forecasts into Excel for use by actuaries with little coding experience

PROJECTS

Strava Data ELT Pipeline | Python, Strava API, Redshift, S3, MySQL, Airflow

May – June 2022

- Orchestrated a data pipeline to ingest, load, and transform personal Strava data
- Utilized Redshift to automatically update a Tableau dashboard and trigger ML model re-training

Essay Companion | Python, FastAPI, Docker, Hugging Face, Onnxruntime

May – June 2022

- Deployed an NLP-powered browser extension to summarize and paraphrase highlighted text

Strava Kudos Predictor | Python, Scikit-learn, SHAP, Steamlit, Optuna

Sep – Nov 2021

- Built a Strava Kudos prediction model to investigate which activity attributes are most influential

EDUCATION

Boise State University

Boise, ID

Master of Science, Mathematics – GPA 4.0

Sep 2020 – May 2022

- Division 1 NCAA track and cross-country student-athlete

The University of Edinburgh

Edinburgh, U.K.

Bachelor of Science, Mathematics – First-class honors (GPA: 4.0 equivalent)

Sep 2016 – May 2020

- Applied mathematics and statistics specialization

TECHNICAL SKILLS

Languages: Python, SQL (Postgres), Rust, Bash, Java

Frameworks/Packages: FastAPI, PySpark, PyTorch, Onnx, Scikit-learn, Pandas, NumPy, Matplotlib

Developer Tools/Platforms: Git, Docker, AWS, Azure, GitHub Actions