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Brighton, UK

Jamie Milsom

Data Scientist / Machine Learning Engineer

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TECHNICAL SKILLS

Languages **Proficient:** Python, SQL **Experienced:** Embedded C++, R
Tech Stack Git, Bash, Linux, PyTorch, TensorFlow, XGBoost, OpenCV, YOLO, scikit-learn

EXPERIENCE

Computer Vision Engineer (Intern) May 2024 — June 2024
LNLink Glasgow, UK

- Worked collaboratively to implement and optimise a cell detection algorithm for a bioinformatics startup, applying transfer learning and data augmentation with YOLOV8 to train the model on a limited dataset.

Research Design Engineer Sept 2022 — Sept 2023
HepcoMotion Exeter, UK

- Worked in the R&D department of an international automation company, designing innovative linear rail systems.
- Led the development of a multivariate regression model to predict mechanical carriage deflection, reducing reliance on complex simulations for customer consultations whilst maintaining a prediction accuracy of 97%.
- Collaborated in cross functional teams with marketing and sales, providing visualisations to effectively communicate findings to non technical stakeholders.

Windsurf Instructor June 2020 — August 2020
Trek Adventures Greece

- Led group and individual windsurfing lessons for up to 70 guests, collaborating closely with a small team of 6 to ensure smooth operations.
- Developed personal communication skills to clearly explain technical concepts to diverse groups while managing time effectively to meet tight lesson schedules.

KEY PROJECTS

Loan Approval Prediction October 2024

- Built a machine learning model to predict loan approval status using a synthetically generated dataset utilising XGBoost with Bayesian hyperparameter tuning.
- Achieved an AUC-ROC CV score of 0.958 and a public leaderboard score of 0.96006 on Kaggle.
- Integrated SQLite3 for dataset management and feature combination.

Protein Structure Prediction March 2024

- Utilised deep learning expertise to train a custom CNN with PyTorch to predict protein secondary structure from primary sequences.
- Conducted extensive hyperparameter optimization using Ray Tune, achieving 80% accuracy on unseen test data.

Audio Classification for Tactile Control December 2023

- Employed PCA, t-SNE, and UMAP for dimensionality reduction; engineered audio features through frequency transforms, enhancing k-NN classifier performance on noisy time-series data.

EDUCATION

Robotics and Artificial Intelligence MSc with Merit, University of Glasgow Sept 2023 — Sept 2024
Mechanical Engineering BEng - 2:1, University of Bristol Sept 2019 — Sept 2022

INTERESTS

Keen trail runner, having run my first ultramarathon in September 2024. Also an avid climber, regularly planning group trips across the UK's mountain ranges.