Manveer Singh

Detail-oriented Data Science student skilled in Python, SQL, predictive modelling, and BI tools. Experienced in developing forecasting models, recommendation systems, and sentiment-driven analytics. Strong problem-solving ability and passion for building practical, data-driven solutions.

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WORK EXPERIENCE

Machine Learning & Data Science Project Experience

Project June 2025 - Present

Developed end-to-end ML products including CryPe 1.0 & 2.0, achieving 4.7% MAPE using LSTM and XGBoost forecasting models. Built NLP sentiment pipeline using Flair and API integration for real-time signal extraction. Created hybrid recommender system using KNN, NMF & neural embeddings, deployed via Streamlit. Designed deep learning models achieving ~91% accuracy on Fashion-MNIST.
Implemented Mask R-CNN object detection system with real-time tracking.

Arcare

Personal Care Assistant (PCA) Jan 2025 - Present

• Maintained accurate documentation and compliance records, demonstrating strong attention to detail and reliability.
• Assisted residents with care tasks while managing responsibilities in high-pressure environments.

EDUCATION

Swinburne University of Technology

Bachelors of Data Science - 7 Feb 2024 - Jan 2025

Kaplan Business School

Bachelors of Data Science - 7 March 2025 - October 2026

PROJECTS

Crype 2.0 October 2025 - November 2025
Developed **CryPe 2.0**, a full AI-based crypto prediction system integrating LSTM, XGBoost, and N-BEATS models with real-time sentiment extraction using Flair + APIs. Improved forecast accuracy using engineered indicators and multivariate time-series modelling.

Crype 1.0 August 2025 - October 2025
Developed **CryPe 1.0**, a time-series forecasting engine using LSTM and XGBoost with engineered indicators like SMA, MACD, and volatility measures. Achieved ~4.7% MAPE on crypto price prediction.

AI powered Course Recommendation engine June 2025 - July 2025
Developed an AI-powered course recommender system combining KNN, NMF, and neural embedding models to generate personalised course rankings. Designed an interactive Streamlit UI for real-time recommendations.

Image object detection july 2025 - July 2025
Object classification from video using pretrained MASK_RNN model

Real estate data analysis August 2025 - August 2025
Real estate data analysis

Quantium Job simulation October 2025 - October 2025
Quantium Job simulation

SKILLS

Python (NumPy, Pandas, scikit-learn, TensorFlow, Keras, PyTorch), R, SQL, BashSupervised & Unsupervised Learning, Deep Learning (CNN, LSTM, RNN), Time-Series Forecasting, NLP & Sentiment Analysis, Recommendation Systems, Computer Vision, Transfer Learning, Model OptimisationAWS (S3, Lambda, SageMaker, EC2), Google Cloud, ETL Pipelines, APIs, Data Warehousing, Docker (basic), MLOps (learning stage)MySQL, PostgreSQL, SQLite, MongoDB, Apache Spark (PySpark), Hadoop (conceptual), AWS AthenaMatplotlib, Seaborn, Plotly, Excel Analytics, EDAStreamlit, Git/GitHub, Jupyter, VS Code, Google Colab, REST APIs, JSON

CERTIFICATE

IBM Machine Learning Specialization-IBM
Advanced Machine Learning & Deep Learning – Packt
SQL for Data Science – University of California, Davis
AWS Cloud Practitioner Certification Specialization – ULSA
Supervised ML (Classification & Regression) – ULSA
Unsupervised Machine Learning – ULSA
Deep Learning & Reinforcement Learning – ULSA
Machine Learning Capstone – ULSA
Quantium Data Analytics job Simulation