JAMES LEWIS

Algorithmic Trader | Quantitative Developer | Data Scientist

James066lewis@gmail.com | linkedin.com/in/james-lewis3/ | github.com/KetchupJL

Quantitative researcher with experience designing and deploying algorithmic trading systems in Solana markets. Skilled in predictive modelling, alpha signal discovery, and blockchain market microstructure, with live-tested strategies achieving 15% average returns and wallet-verified portfolio growth. MSc dissertation advanced ensemble models (QRF, LightGBM, LQR) and on-chain analytics to forecast risk and optimise position sizing. Strong focus on turning research insights into scalable, alpha-generating trading algorithms.

EDUCATION

University of Exeter | **MSc Data Science and Statistics** (Distinction, 78% avg)| 2024-25

- Key methods: supervised & unsupervised learning, Bayesian inference, time-series forecasting, hierarchical & spatio-temporal modelling.

Loughborough University | **BSc (Hons) Economics** | 2019-23

SKILLS & TECH STACK

Programming & Automation: Python | R | SQL | TypeScript | Git
Quantitative & Trading: Statistical Modelling | Time Series Analysis | Backtesting, Monte Carlo Simulation | Risk Management Techniques |Algorithmic Position Sizing |Market Microstructure Analysis
Machine Learning: Supervised Learning (Classification, Regression) | Unsupervised Learning (Clustering, Anomaly Detection) | Tree-Based Models | Deep Learning Foundations (TensorFlow, PyTorch)
Crypto & Blockchain: DeFi Protocol Analysis | DEX Liquidity & Slippage Analytics | On-Chain Data Extraction | Crypto Market Microstructure | Tokenomics Analysis
Data Engineering: Real-Time Data Pipelines |Modular Bot Architecture | Low-Latency Optimisation, Async Execution

RELEVANT EXPERIENCE — Full Data Science, ML and Quant Portfolio on GitHub

Independent Quant Researcher & Algorithmic Trader | 2023–Present

- Discovered a proprietary alpha signal filtering fresh Solana tokens with higher probabilities of success, powering profitable low-cap strategies. Expanded into mid/high-cap trading using swing strategies and ML-driven models.
- Built predictive models (LightGBM, Quantile Regression Forests) to estimate breakout probability, time-to-ATH, and risk-adjusted returns, with custom feature engineering on liquidity depth, wallet clustering, velocity metrics, and rug-pull heuristics.
- Designed a research-grade backtesting and paper trading system enabling parallel strategy evaluation, walk-forward testing, and structured performance reporting.
- Engineered real-time pipelines (Python, TypeScript, SQL) integrating SolanaTracker, DexScreener, and Helius APIs/RPCs; scaled infra to monitor 1,000+ tokens simultaneously under live trading conditions.
- Automated the complete signal loop: data ingestion, model prediction, trade execution, reporting, with Prometheus metrics, anomaly detection, and Discord integrations.

MSc Dissertation: Risk-Adjusted Interval Forecasting of Solana Tokens | See Github/Linkedin for full paper

- Built a research-grade forecasting pipeline for mid-cap Solana tokens (market cap >$30M) using Python + SQL + APIs, aggregating OHLCV, liquidity, and on-chain data at 12h frequency.
- Developed a calibrated QRF pipeline with time-decay and non-crossing enforcement.
- Applied to risk-aware sizing, achieving Sharpe ≈0.9 and reduced drawdowns vs fixed strategies.

Hudl | Intern, Revenue Operations | Oct 2023–Apr 2024

- Delivered sales insights by aggregating 30+ product features in SQL, enabling data-driven go-to-market strategy.
- Designed a live intranet dashboard that reduced data retrieval time by 8 hrs/week, improving operational efficiency.

INTERESTS

- **Clubs & Leadership:** University of Exeter Google Student Developer Club (Advanced Python workshops); Computer Science Society (Hackathons & AI projects); Finance & Investment Society
- Crypto Markets, Emerging Technology, AI Tech, Machine Learning Research and Mid Frequency Trading