

Aashish Nagraj Biradar

Data Scientist | Machine Learning | NLP

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PROFESSIONAL SUMMARY

Data Scientist with 2+ years of experience building and deploying machine learning models in production across natural language processing (NLP), computer vision and time-series forecasting, owning the full lifecycle from data pipelines to A/B-tested deployment. MSc Finance Analytics at King's College London, with a dissertation applying transformer-based (FinBERT) news sentiment to equity premium forecasting. Builds LLM-powered applications end to end with the Claude and Gemini APIs. Available to work immediately in the UK on a Graduate visa (no sponsorship required for 2 years).

PROFESSIONAL EXPERIENCE

Data Scientist, WiseWork Apr 2024 - Jul 2025
Machine learning and data tooling for an engineering analytics platform | Bengaluru, India

- Developed and deployed an NLP intent-classification model (90% accuracy) into a customer support chatbot, cutting query handling time 25% and lifting CSAT 15%.
- Engineered an unsupervised clustering model (Python, scikit-learn) on production error logs, grouping incidents by type to cut mean time to resolution 30% (10h to 7h) across 30+ incidents monthly; automated the metrics into dashboards and a scheduled daily digest.
- Built a computer vision pipeline with a CNN digit-recognition model to automate exam marking: reading roll numbers from scanned OMR sheets and feeding predictions into the marking algorithm and results database, replacing manual correction.
- Partnered with product and support stakeholders on weekly model reviews, running A/B validation on model updates with monitoring dashboards that cut post-deployment regressions ~40%.

Graduate Engineering Trainee, TVS Motor Company Aug 2022 - Aug 2023
Data science, predictive modelling and time-series forecasting for EV manufacturing | Bengaluru, India

- Led an EV predictive analytics initiative that improved charge-cycle forecast accuracy 25% with expanding-window out-of-sample validation; dashboards were adopted by senior leadership for production and capacity planning.
- Automated raw-material price tracking in Python, reducing manual procurement effort 50% and enabling weekly data-driven sourcing decisions.
- Built Azure Data Factory and Azure Data Lake ETL pipelines for SAP payroll analytics with alert-based monitoring, cutting processing time 40%, reclaiming 600+ man-hours per quarter and improving accuracy for 1,000+ employees.

PROJECTS

Double O Broke, Personal AI Agent (Android) Oct 2026 - Present
Built with the help of an AI coding agent | Kotlin, Jetpack Compose, Room, GitHub Actions, Claude and Gemini APIs, TfL Open Data

- Built a personal AI agent that saves 30 to 45 minutes of manual work a day by logging spending from bank alerts and using the Claude and Gemini APIs to sort every email so only the important ones need attention; 39 releases in its first week, 120+ unit tests in CI.
- Added strict daily app limits that block an app once its time is up and can't be loosened until the next day, cutting my Instagram and YouTube use to 3.5 hours a day in total.
- Turned noisy phone GPS into tube and bus journeys priced with TfL open data (glitch removal, speed and accuracy filters, line changes); replaying a real exported day cut false trips from 6 to the 2 actually taken, locked in with regression tests.

Just Let Me Pass This, AI Japanese Study Agent (Android) Oct 2026 - Present
Built with the help of an AI coding agent | Kotlin, Jetpack Compose, Room, Python, Claude API

- Built an AI study agent for the JLPT (N5 to N1) that plans each study session with a staged spaced-repetition scheduler, runs mock tests and fades furigana as words are learned; the Claude API powers chat, explanations of wrong answers and new graded readings.
- Wrote a Python content pipeline that merges open datasets (JLPT word lists, KANJIDIC, KanjiVG stroke order) with written material into validated study content: 8,000+ words, 2,200+ kanji, 520+ grammar points and 250+ graded stories.

EDUCATION

MSc Finance Analytics, King's College London (King's Business School) Sep 2025 - Present
Dissertation: Forecasting the UK equity premium (2000-2025) with machine learning and FinBERT sentiment from 198,000 news articles. Nested models (elastic net, random forest, gradient boosting) tested statistically (out-of-sample R-squared, Clark-West) and in a transaction-cost-aware backtest: FinBERT beat a dictionary baseline, and the sentiment random forest beat buy-and-hold on Sharpe ratio with a smaller drawdown. Found and fixed a look-ahead bias that had overstated out-of-sample R-squared by 5.8 points.
Student Representative for a 90+ student cohort. Certification: Finance Trading Program (King's Business School).

B.Tech Computer Science and Engineering, NIT Rourkela Aug 2018 - May 2022
Thesis: Fake news detection, benchmarking deep learning (LSTM, Bi-LSTM) against classical machine learning (logistic regression, naive Bayes, passive aggressive) with an NLP pipeline (stemming, word embeddings); best model reached 99% accuracy. Vice-Captain, University Basketball Team (12-member squad).

SKILLS

Programming: Python (Pandas, NumPy, scikit-learn, PyTorch, TensorFlow, Hugging Face Transformers), SQL (MySQL, Supabase), Kotlin
Machine Learning: NLP, Large Language Models (LLMs), Transformers (FinBERT), Computer Vision (CNNs), Deep Learning (LSTM), Gradient Boosting, Random Forests, Clustering, Time-Series Forecasting
Statistics and Evaluation: A/B Testing, Experiment Design, Out-of-Sample Validation, Clark-West Test, Backtesting, Model Monitoring
Data Engineering and BI: ETL Pipelines, Azure Data Factory, Azure Data Lake, Power BI, Dashboards, Data Visualization, Flask REST APIs
Tools: Git, GitHub Actions (CI/CD), Unit Testing, Agile/Scrum, Android (Jetpack Compose)

LANGUAGES AND INTERESTS

Languages: English, Hindi, Japanese (basic, sitting JLPT N4 in December 2026). Interests: PADI Advanced Open Water Diver, Skydiving, Solo Travel, Speedcubing (competition runner-up), Photography.