Aryan Aryashrestha

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PROFESSIONAL SUMMARY

Data Analyst with experience in experimentation, statistical modelling, and machine learning. Skilled in translating complex datasets into actionable insights that enhance user behaviour understanding and product performance. Strong technical grounding in Python, SQL and analytics tools, with the ability to support leadership through clear, data-driven narratives.

CORE COMPETENCIES

Product & Data Analytics | Python & SQL | Machine Learning | A/B Testing & Experimentation | ETL & Workflow Automation | Visualisation & Insights

PROFESSIONAL EXPERIENCE

Data Intern

Rocket Learning | Remote | May2024 – July 2024

- Led analytics for a new early-stimulation product, generating insights from a pilot across two states and 600 families that informed feature decisions and programme design.
- Built dashboards, ETL workflows, and KPIs using SQL, Python, and Alteryx, improving data freshness and driving activation to 80%+, engagement to 40%+, and stronger retention.
- Applied regression analysis, A/B testing, and statistical methods to evaluate learning outcomes and content variations, enabling data-driven improvements for product and impact teams.

PROJECTS

HeartBeatAI: AFib Detection with Deep Learning

- Developed a hybrid CNN–BiLSTM model with attention to detect atrial fibrillation from ECG signals, achieving 88% recall and clinically meaningful sensitivity.
- Enabled real-time (<25 ms) inference by optimising the model for edge deployment using TensorFlow Lite and integrating interpretability through Grad-CAM.
- Delivered a functional Flask web app for end-to-end prediction, leveraging Python, TensorFlow/Keras, NumPy, Pandas, and Matplotlib.

AI Chess Bot

- Built an intelligent chess agent using minimax with alpha–beta pruning and custom evaluation heuristics to generate optimal moves.
- Integrated the Stockfish engine into a Flask web interface supporting Human vs AI and AI vs Stockfish gameplay modes.
- Delivered a production-ready prototype using Python, Flask, Stockfish, Chess Library, and basic front-end components.

Network Intrusion Detection System (NIDS)

- Engineered a real-time NIDS to detect port scans, SYN floods, and unauthorised access attempts by analysing live network traffic with Scapy.
- Designed a web dashboard that visualised alert patterns, intrusion severity, and system trends to support security monitoring.
- Built with Python, Scapy, PostgreSQL, Flask, and Docker, enabling scalable analysis and structured event logging.

EEG-Based Seizure Detection Model

- Designed DenseBlock and CNN architectures to classify seizure vs non-seizure states, reaching 96.5% accuracy across evaluation splits.
- Preprocessed EEG signals with scaling and standardisation workflows and assessed performance using confusion matrices and diagnostic plots.
- Implemented using Python, TensorFlow/Keras, Pandas, NumPy, Scikit-learn, and Matplotlib.

EDUCATION

Manipal University Jaipur | Jaipur, India

Bachelor of Technology (BTech) in Data Science and Engineering, CGPA 8.59 | Sep 2021 – July 2025

SKILLS

Programming & Query Languages: Python, SQL, PL/SQL, A/B Testing, Machine Learning, Deep Learning
Analytics & Visualisation: Alteryx, Matplotlib, Seaborn
Frameworks & Libraries: TensorFlow, Keras, Scikit-Learn, Pandas, NumPy, Flask
Data Infrastructure: MySQL, Relational SQL Databases, AWS (Basics), Docker
Tools & Environments: Git, GitHub, Linux, API Integration, Cisco Packet Tracer