Kartik Valecha

Data Scientist

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WORK EXPERIENCE

PLAYSIMPLE GAMES, Bengaluru

1. Data Scientist   February 2025 - Present

- Built a generic Marketing Mix Modeling (MMM) framework achieving **85% accuracy, deployed across 20+ games to optimize spend allocation across 45+ ad networks**, consistently achieving ROAS target.
- Designed and automated a Python + GenAI creative generation pipeline producing **6,000+ static creatives and 500+ video ads, supporting $1M+ in ad spend** and significantly reducing creative turnaround time.
- Built **ROAS and LTV prediction models with 95% accuracy**, enabling enabling precise spend and campaign optimization, strategic decision making across multiple games and 60+ ad networks.

2. Associate Data Scientist   August 2024 - February 2025

- Developed customer analytics & personalization models including churn prediction, purchase propensity, and payer classification, **increasing Revenue by 5–6%, LTV by 2–3% across 5 games (iOS & Android)**.
- Created experiment outcome forecasting models for A/B testing, predicting **ROAS and LTV uplift pre-launch with 95% accuracy upto D60**, reducing decision uncertainty and standardizing experiment evaluation across multiple games.
- Investigated metric drops and pipeline delays using Causal Analysis and performance dashboards, ensuring continuity of business-critical forecasts with 95% model accuracy.

3. Trainee Data Scientist   August 2023 - August 2024

- Developed generative AI solutions using LLMs (ChatGPT, LLaMA) to **generate localized puzzle content for new markets, crafting 30,000+ puzzles across 12 languages** enhancing global player engagement.
- Designed and implemented **Root Cause Analysis (RCA) module** for ROAS prediction models using feature attribution, residual diagnostics as drift detection, **improving model explainability and reducing investigation time by 60%**.
- Developed ML utilities **Rule Generator, Classifier, Clustering, and Auto Regressor**, enabling scalable user-level modeling and standardizing machine learning workflows across multiple teams.

EDUCATION

Birla Institute of Technology And Science   Pilani, Rajasthan
M.Tech. Artificial Intelligence & Machine Learning   2026 - Present

Jaypee Institute of Information and Technology   Noida , UP
B.Tech. Computer Science Engineering   **CGPA : 8.1 / 10.0**   2020 - 2024

Indian Institute of Technology Madras   Chennai , Tamil Nadu
BSc Data Science and Applications   2020 - 2024

PROJECTS

Optimized Communication Method For Clustered Federated Learning || Python, Machine Learning, Socket-IO
This research initiative focused on enhancing communication efficiency within Federated Learning(ML) frameworks by employing techniques like Compressed Sensing.

- Achieved a **data reduction** of **46.875%** with an average **global accuracy** of **97.36%**.
- Accomplished working model of the proposed approach using Raspberry Pi and sensors (Hardware)   GitHub Repository

Fraud-Guard || Python, Neo4j, Google Cloud, Deep Learning
Built a high-recall, high-precision fraud detection system tailored to transaction gateways, containerized with Docker and deployed on GCP Cloud Run for scalable, production-grade inference.

SKILLS

Technical Skills:

- Machine Learning and Deep Learning
- Data Analytics
- Statistical Analysis
- Big Data and PySpark
- Python
- Git (Version Control), Databricks

Additional Skills: C++, Web Development (HTML, CSS, JS, React, Flask), SQL, Excel, Tableau