

Aman Singh

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PROFESSIONAL EXPERIENCE

Community Dreams Foundation • Data Scientist

August 2025 – July 2026

Remote, United States

- Reduced session abort rate by 41% through **behavioral analysis** of product telemetry, failure-pattern diagnosis, and targeted fixes across the highest-friction user journeys.
- Instrumented product events with Segment across onboarding, core workflows, and key user journeys, standardizing behavioral tracking and enabling reliable funnel, retention, and product performance analysis across teams.
- Built an agentic NL-to-report workflow grounded in business metrics and SQL, reducing recurring analytics effort by 10+ hours per week across stakeholder requests.
- Red-teamed the LLM-powered mock-interview platform for safety and production readiness before launch.

New Jersey Institute of Technology • Graduate Project Assistant

September 2024 – May 2025

Newark, NJ

- Tutored undergraduates in statistics**, covering hypothesis testing, probability, confidence intervals, regression, and experimental-design fundamentals.
- Matched 400+ students to 50 industry-sponsored capstone projects using Llama 3.1 and ChromaDB, contributing to 100% project completion across assigned teams.

NSquare Xperts • Data Scientist

January 2022 – August 2023

India

- Designed an **A/B test** for guest checkout, increasing completion by 9% and quarterly revenue by AED 800K with stable AOV and complaint rates.
- Built a discovery-to-checkout **completion funnel** with Segment, BigQuery, and SQL, cutting RCA time by 80% and informing product iterations and A/B tests.
- Engineered recency, frequency, and monetary features in SQL to define six customer segments, enabling more personalized lifecycle campaigns and targeted engagement that improved ROAS by 15%.
- Estimated a 25% increase in qualified-opportunity conversion from priority sales outreach using **regression discontinuity** around the CRM lead-score cutoff.
- Designed an NLP pipeline using DistilBERT for automated complaint classification and routing, reducing manual triage time by 65%.

PROJECTS

DataPilot 🔗 • Python, LangGraph, FastAPI, PostgreSQL

March 2026

- An AI data analyst you talk to: it turns a plain-English question into SQL over the warehouse, runs the analysis in deterministic Python, and writes up the findings, with a human approving the query, the results, and the wording before anything ships.
- Its experiment module reads A/B test results the way an analyst would, checking sample-ratio mismatch, applying CUPED variance reduction, computing power and minimum detectable effect, and flagging novelty effects and guardrail-metric movement.

UpliftBench (arXiv:2604.06123) 🔗 • Python, LightGBM, EconML, scikit-learn, SHAP

February 2026

- A published benchmark (arXiv) on which customers a marketing campaign actually changes: four uplift-modeling methods compared on 13.98M Criteo records to find the 20% of customers worth targeting.
- Turns each model's rankings into a budget-versus-conversion curve showing what every extra dollar of targeting buys, with bootstrap confidence intervals on each customer's estimated effect so a marketer can see who is a safe bet and who is not.

BrainBuild • React, Node/Express, Python/FastAPI, PostgreSQL (pgvector)

2026

- A live knowledge app (brainbuild.app) where people save articles, notes, and documents and then ask questions answered only from what they saved, with a knowledge graph linking the concepts across their library.
- Answer quality is checked in production: questions users rated well are mined into a human-reviewed test set and a separate model grades the app's answers every week, so a regression shows up before users notice it.

TECHNICAL SKILLS

Languages Python, SQL (PostgreSQL, BigQuery), R

Experimentation A/B Testing, Metric Design, Power Analysis, CUPED, SRM, Regression Discontinuity

Statistical & ML Libraries statsmodels, EconML, scikit-learn, LightGBM, SHAP

Product Analytics Segment, PostHog, Tableau

AI Tooling Claude Code, Cursor, LangGraph, Agentic Workflows, Prompt Engineering

Certifications AWS Certified Machine Learning Engineer (Associate), SQL Advanced (HackerRank)

EDUCATION

New Jersey Institute of Technology • MS in Data Science, GPA 3.7

Newark, NJ • September 2023 – May 2025

Vellore Institute of Technology • B.Tech in Computer Science

Vellore, India • July 2018 – May 2022