

Urja Damodhar

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Summary

Data Scientist with a track record in AI, infrastructure, and behavioral systems. I blend structured research, fast learning, and a builder's mindset to uncover overlooked patterns and turn them into clear, actionable insights. Grounded in rigorous research and real-world problem-solving, I bring clarity and follow-through to sourcing and evaluation.

Technical Toolkit:

Programming & Modeling: Python (Pandas, Sklearn), SQL (PostgreSQL), Time-Series, LSTM, K-Means, A/B Testing

Data Platforms & Tools: Databricks, Snowflake, AWS (Glue, S3), Web Scraping

Visualization & Reporting: Tableau, Looker Studio, Excel

Experience

Machine Learning Research Assistant

Boston, MA | Jan 2024 – Present

Boston University

- Designed a custom Transformer-based LLM model with gated embeddings, symbolic tokenization, and positional encoding to decode Morse sequences, following a comparative evaluation of six NLP sequence models
- Achieved 27% improvement in auditory recall accuracy through a 10-week behavioral experiment with 215 participants, using T-tests and regression to validate results
- Engineered pipelines to analyze 300 years of currency design, uncovering aesthetic trends using time-series clustering
- Automated data ingestion and preprocessing workflows using Databricks notebooks, improving reproducibility and reducing cleaning time by 40%
- Co-authored Visual Python, an interactive symbolic logic learning module; mentored junior researchers and ensured milestone delivery on grant-funded projects
- Led a team of research assistants and reported project progress directly to the lead professor, driving collaboration and delivery

Data Scientist - Researcher

GLOB-S Research Lab

Boston, MA | Jul 2024 – Jan 2025

- Applied econometric and causal inference methods (DiD, panel regression, fixed effects) to uncover post-disaster innovation and sentiment shifts
- Processed and analyzed 1M+ media records using BigQuery, improving marketing strategy performance by 25% via Looker Studio dashboards
- Built ML models to impute 600K+ missing values, improving data quality and enabling robust downstream modeling
- Automated scalable ETL pipelines in Snowflake, supporting multi-institutional research projects with reliable transformations
- Managed documentation, data hygiene protocols, and reproducibility standards across grant-funded research cycles

Data Science Intern

Flip Robo Technologies LLC

Remote | Apr 2021 – Oct 2021

- Built credit risk models for microloans using Python on 100K+ records, improving approval accuracy by 12%
- Created Tableau dashboards to visualize risk metrics, reducing default rates by 8% and aiding decision-making
- Engineered risk features and automated data cleaning, cutting preprocessing time by 30%

Computer Science Educator

WhiteHat Jr

Pune, India | Aug 2020 – Aug 2021

- Taught 1,200+ sessions on Python, SQL, Tableau, ML, and web development with 4.9/5 rating and 95% retention
- Mentored students to build 30+ end-to-end apps using pandas, scikit-learn, Streamlit, and Flask
- Aligned with 10+ stakeholders to tailor content and improve data insight communication across 90% of projects

Education

Boston University, Master of Science in Applied Data Analytics

Sep 2023–Jan 2025

Coursework: Data Mining, Deep Learning, NLP, Business Intelligence and Analytics, Intro to Optimization

Achievement: Bagged 1st place at Boston University Hackathon 2024 for Data Science Model Driving Business Impact

World Peace University, Bachelor of Engineering in Information Technology

Coursework: Data Structures & Algorithms, Probability and Statistics, Database System

Projects

Marketing Campaign Analytics ([link](#))

Python • SQL • Tableau • A/B Testing • KPI Analysis • Customer Segmentation

Optimized campaign performance by engineering KPIs, merging response variables, and conducting A/B tests. Enhanced targeting and conversion tracking through behavioral segmentation and SQL-powered Tableau dashboards.

Customer Churn Intelligence Engine ([link](#))

Snowflake • SQL • CI/CD • Time-Series • FinTech

Designed a modular churn tracking system using Snowflake pipelines and version-controlled SQL scripts. Enabled customer segmentation and churn prediction across banking cohorts, improving retention analytics and downstream ML readiness.