AKSHAT GAUR

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Data Scientist with hands-on experience in ML, NLP, and big data systems to drive insights and automate real-world processes.

PROFESSIONAL EXPERIENCE

DATA & OPERATIONS ANALYST

Jul 2024 - Jun 2025

DePaul University, Chicago, IL

- Analyzed engagement logs from 1K+ career fair attendees using Python & SQL to extract behavioral insights, boosting student participation by 45% through improved event design.
- Automated Handshake account approvals by integrating Excel VBA and enrollment data checks, cutting manual effort by 80% and improving accuracy in student onboarding.
- Created Tableau dashboards to support cross-functional outreach decisions, improving event execution and student targeting.
- Diagnosed systemic IT issues via support ticket analysis, deploying fixes that cut response time by 40%.
- Managed a 150+ tech database, generating monthly reports to inform equipment usage and improve resource allocation.

DATA SOFTWARE ENGINEER

Jul 2022 - May 2023

Profinch Solutions Pvt Ltd Bangalore, INDIA

- Developed and integrated a data-informed module using Spring Boot, AngularJS, and SQL to support product demonstration workflows for client-facing teams.
- Created internal documentation and workflow guides for Atumverse on GitHub by analyzing feature usage patterns, improving cross-team understanding and operational efficiency.
- Collaborated with cross-functional teams to analyze system behavior using internal logs and stakeholder feedback, delivering technical insights that led to targeted system improvements in a fintech environment.

PROJECTS

CLUSTERING EXPEDIA CUSTOMERS BASED ON BOOKING BEHAVIOR

Jan 2025 - Mar 2025

- Segmented Expedia users by booking patterns to uncover distinct traveler personas and drive actionable marketing insights.
- Engineered behavioral metrics (e.g., booking frequency, advance planning) to optimize cluster interpretability.
- Applied K-Means clustering with scikit-learn to determine optimal number of clusters using silhouette and elbow methods.
- Identified 4 distinct customer profiles, enabling marketing teams to personalize outreach and improve engagement efficiency.

UBER EATS DATA ANALYSIS AND RESTAURANT RECOMMENDATION

Sep 2024 – Nov 2024

- Developed a recommender system to uncover dining trends and generate suggestions based on location and menu pricing.
- Built Spark based ETL pipeline to clean and transform 1M+ menu items from AWS S3 and queried metadata using Athena.
- Engineered key features and implemented cosine similarity using Spark MLlib to compute restaurant similarity scores.
- Validated the model with 90%+ match accuracy, establishing a robust alternative to cuisine-based recommendation logic.

MULTI-LABEL GENRE TAGGING USING IMDB METADATA

Mar 2024 - Jun 2024

- Designed a multi-label classification model to assign multiple genres to each movie using plot summaries and cast metadata.
- Extracted TF-IDF features from text and encoded categorical fields to support efficient training on large-scale IMDb data.
- Trained One-vs-Rest logistic regression and random forest models, optimizing for Hamming loss and macro F1 score.
- Delivered 75% genre accuracy, enabling better content discovery through enhanced filtering and recommendations.

EDUCATION

Master of Science in Data Science

Jun 2025

• DePaul University, Chicago, IL (GPA 4.0/4.0)

Bachelor of Technology in Computer Science

Jun 2022

• MS Ramaiah University of Applied Sciences, Bangalore, INDIA (GPA 3.9/4.0)

TECHNICAL SKILLS

- Programming & Data Handling: Python, R, SQL, MATLAB, Pandas, NumPy
- Machine Learning & NLP: Scikit-learn, XGBoost, TensorFlow, PyTorch, NLP, TF-IDF, Tokenization
- Big Data & Cloud Platforms: Apache Spark, PySpark, AWS (S3, Athena, EMR), Hadoop
- Analytics & Visualization: EDA, A/B Testing, Hypothesis Testing, Tableau, Power BI, Excel
- Dev Tools & Databases: Git, Jupyter, VS Code, PostgreSQL, MySQL