



SANJANA RAO

Experienced Backend Developer with 6+ years of multi-project expertise in Java, Python, and HQL. Skilled in crafting efficient, scalable solutions for backend architectures to enhance application performance.

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EXPERIENCE

Senior Engineer, Target

AUG 2020 - PRESENT

- Designed and operated high-throughput, event-driven distributed systems using Kafka and Springboot for processing millions of records daily with low-latency (< 100 ms), fault-tolerant data pipelines..
- Drove approximately \$4M in annual revenue impact by implementing Virtual Bundles to solve for inventory, sales and return issues. This enabled faster push of high-volume bundled items to market thus increasing conversion rates and repeat purchases.
- Improved barcode data integrity through checksum validation and anomaly detection using Python, Hive, and PySpark reducing revenue leakage by 10–15% across large-scale item data pipelines.
- Designed and implemented K-Means clustering techniques to automate item grouping on Target.com using Python and Scikit-learn reducing manual effort by 25%.
- Built high-throughput data quality pipelines using SQL and Internal tools to enforce consistency, accuracy, and timeliness across large-scale item data systems, supporting reliable downstream processing.
- Built Item Quality Index reporting and automated pipelines, improving data accuracy by 23% and reducing recurring data issues.
- Led design and implementation of a Spring Boot + Postgres system to automate item cluster rollout, replacing legacy Elasticsearch and eliminating key bottlenecks to improve system scalability and performance.
- Implemented production monitoring and alerting using Grafana, Kibana, and Slack bots, improving system reliability and ensuring high-availability.

Tenovia, Intern

JAN 2020 - MAR 2020

- Worked as a data engineer; extracted data using Facebook Ads API to be inserted into a cloud warehouse using Snowflake.
- Worked on AWS services such as S3, Lambda and Athena.

EDUCATION

PES University, B.E Computer Science Engineering

AUG 2016 - JUL 2020 • 8.5 GPA

Lourdes Central School, CBSE

2014 - 2016 • 94%

EXTRA CURRICULAR

- Scored distinction in KSEEB, Indian Classical Carnatic Music junior with 83%
- Scored distinction in KSEEB, Indian Classical Carnatic Music junior with 83%

HOBBIES



SKILLS

Backend Application Development
Data Analysis and Data Quality
OOPs concepts
Design Principles
Database Management Systems
REST APIs
Machine Learning
Data Structures and Algorithms
Debugging and Deployment

LANGUAGES

Java - Advanced
Python - Advanced
SQL/HQL - Advanced
C/C++ - Intermediate
Kotlin - Beginner

FRAMEWORKS

Springboot Microservices
MongoDB, Postgres
Hive
Pandas, TensorFlow, NLTK
Scikit-Learn, Matplotlib
Apache Kafka
Flask
PySpark

TOOLS

IntelliJ
Elastic Search
Jupyter Notebooks, Jupyter Labs
PyCharm