SANAT PARMAR

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SUMMARY

Senior Technologist | Data Engineering Analytics
5 + years of experience across Software Engineering, Data Engineering, Applied Machine Learning and Big data Analytics. Proven expertise in building scalable ETL frameworks, machine learning models, and automated analytical solutions. Interested in translating business requirements into technical solutions, designing and developing scalable data-intensive applications. Passionate about building great products, working with talented people & learning new technologies.

TECHNICAL SKILLS (*-Familiar)

- **Programming Languages:** Python, SQL, Java, Scala*
- **Cloud:** Azure (Synapse, Data Factory, Databricks, Functions, LogicApps), Heroku Cloud Platform, Rest API (Flask, Fast API)
- **Big Data & Machine Learning:** Spark, Hadoop, HDFS, ML (e.g., Scikit-learn, NumPy, Pandas, Matplotlib), TensorFlow*, RASA
- **Databases:** Relational (Oracle Exadata, Vertica, MySQL), Impala, MongoDB, Microsoft SQL Server*
- **Data Science and Miscellaneous Technologies:** A/B testing, Data science pipeline (cleansing, wrangling, visualization, modeling, interpretation), Statistics, Time series, Hypothesis testing, Git

EXPERIENCE

Bank of America: Analyst - GBS   March 2023 – Present

- Developing Analytical Capabilities for Electronic Trading desk under Equities. Daily responsibilities include Procuring and Analyzing new datasets, Automating Data Delivery, Working with Platform and Strats team to own requirements, data acquisition, design and implementation of Analytical solutions for various Business use cases.

- Projects Actively Working on:

  1. ETL Framework: - Developing and Extending the proprietary config-driven batch ETL pipeline to ingest data from internal Electronic Trading Applications, Market feeds, Vendor APIs etc. into Equity Data warehouses. This Scalable framework is leveraged to capture crucial datasets, supports ad-hoc and recurring workflows, serving as the backbone for Analytics and **BI dashboards** and to deliver crucial Insights to the sales and trading desks

  2. Trader Direct Analytics Framework: Engineered an omni-channel non-real-time alerting system for generating dynamic alerts and KPIs (e.g., volume growths, trade anomalies) for 200+ traders and stakeholders.

  3. Augmented Analytics: Custom Natural Language processing extension to TDA framework; which uses configurations to automate summary generation and delivery.

  4. Data Validation Framework: Developed for validating crucial datasets by performing rule-based checks to ensure data quality. The framework can be configured to validate any dataset, and easily apply standard checks as well as extend the framework to write and apply custom data checks on the resultant tables. Also provides avenues of reporting any failed checks through different channels.

  5. 3Forge and Optimus NLU chatbot: Deploying a hybrid NLP chatbot to simplify user interactions with trading data, resolving trader queries autonomously. Exposed analytics via REST APIs (Flask and Tornado), increasing platform adoption by 40% and enabling self-service data access. Integrated with 3Forge UIs to streamline user interactions with our platforms and workflows.

  6. Vendor Data Dashboards: Developed unified vendor data views aggregating Bloomberg, RFQHub, and internal trade platforms. Optimized SQL queries, reducing dashboard load times by 20%. The vendor view forms the backbone of the Vendor dashboards developed by the BI team and used by both traders and management extensively.

  7. Backends: Writing customized products on top of these frameworks, development and management of our backend APIs that equities team support, consulting traders with and providing solutions to different business use cases.

Cyient: Data Engineer – B   May 2021 – March 2023

- **Client: Euro Garages, Australia** – Worked on HR and Retail Analytics

  1. **HR Analytics Modernization**: Architected a scalable ingestion framework (Azure Data Factory, Python) to process 48 Million+ historical HR records from Kronos, SuccessFactors, and Preceda, resolving 7 years of fragmented data into a centralized warehouse. Enabled compliance reporting for 10000+ employees with 99% accuracy, reducing audit preparation time by 40%.

  2. **Retail Analytics:** Engineered daily retail ETL pipelines (Spark, SQL) integrating POS, vendor, and transaction data from 540 stores, powering executive dashboards that drove 11% YoY sales growth. Revamped legacy systems to cloud-native pipelines, reducing data processing latency by 30%. Built reusable ingestion frameworks to onboard new data sources for retail use cases in <2

days, accelerating time-to-insight. Revamping the traditional systems for Cloud based integration, data migration & automated monitoring activities.

   3. **Fuel Demand Forecasting:** Developed Fuel Demand Forecasting Model using Facebook Prophet for Predicting demand based on historical consumption patterns and current trends with 92% accuracy, optimizing inventory across 60+ fuel stations and reducing wastage by ~10%.

- **Client: Aluminum Company of America (ALCOA), Australia** – Architected, Developed & Managed Data Infrastructure using Azure Data Factory to build data capabilities for **global Automated Integrity Assessment and Risk Management System (AIARMS).**

Smarte Inc: Associate Software Engineer   Sep 2019 – Dec 2020

- Developed applications for data audit, normalization, data enrichment and email intelligence for the Data as a Service platform "**Data Genie**". (Stack: Java, MySQL, Hibernate, Elastic Search, MongoDB)
- Developed user management and data aggregation modules for user-facing web applications. (Stack: ReactJs, NodeJs, MySQL). Worked on process automation, performance enhancements, and bug fixes for improving the existing application.

Venus Labs: Software Engineer -Trainee   Sep 2018 – Aug 2019
- Developed multi-platform mobile application and designed customized plugins for the R&D project "Centrico".

ACADEMIC PROJECTS

- **Resumeasy:** A cloud-based web application to match candidates with relevant jobs and suggest pertinent skills. The project employs hybrid content-based recommendation system to suggest jobs and an analytical dashboard built to suggest apt skills in demand based on individual user profiles. The application leverages MongoDB as its backend database and is deployed on Heroku Cloud Platform.
- **Vehicular Crash detection and Notification System (VCDNS):** VCDNS aimed at detecting car accidents by analyzing sensors embedded in the vehicle's dashboard and the user's smartphone, and used a fuzzified approach to process the patterns and predict the car accident combined with thresholding mechanism on the smartphone sensors. The Android application developed was used to report the accident to the emergency services, relatives and notify nearby users using geofencing techniques. Paper Published in ICAST-2018

EDUCATION

CENTRE FOR DEVELOPMENT OF ADVANCED COMPUTING, PUNE
Post Graduate Diploma, Big Data Analytics, SEP 2020- MAY 2021, Percentage: 86.17 (Grade: A+)

RAMRAO ADIK INSTITUTE OF TECHNOLOGY, MUMBAI UNIVERSITY
Bachelor of engineering, Computer Engineering, 2014-2018, CGPA: 8.61/10

CERTIFICATIONS

- Microsoft Technical Associate: Security Fundamentals
- **Data Manipulation Scale: Systems and Algorithms** by University of Washington on Coursera (Grade Achieved: 95%)
- **Machine Learning Specialization** by Stanford University & DeepLearning.AI on Coursera (Grade Achived: 98%
- Python for Developers (Skillsoft) and Advanced Python: API Design (O'Rielly)
- SQL (Intermediate) - Hackerrank