NITHYASHREE BALACHANDRAN

Data Engineer & Analyst

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ABOUT ME

Data and software engineering professional with 2.5+ years of experience designing scalable data pipelines, automating workflows, and implementing ML-driven solutions to improve business outcomes. Proficient in Python, SQL, and R with hands-on expertise across GCP and AWS. Skilled in translating complex data into actionable insights, delivering secure and efficient production systems, and aligning technology solutions with strategic business objectives. Experienced in integrating AI and GenAI technologies to enhance analytics, automation, and decision-making capabilities.

EDUCATION

SSN COLLEGE OF ENGINEERING
Bachelor of Engineering
in Biomedical Engineering
2019-2023
GPA - 8.9

SKILL / TOOLS

Programming Languages: Python, SQL, Pyspark, HTML, CSS

Data Engineering & Integration: ETL Pipelines, REST APIs, Microsoft Graph APIs, Datawarehousing, Data Modeling

Machine Learning & Libraries: ML Libraries (e.g., scikit-learn, PySpark MLlib)

Cloud & Big Data Tools: GCP BigQuery, Cloud Composer, Looker, Airflow

Business Intelligence & Monitoring: Power BI, Tableau, Grafana

CI/CD: Git

Project Management : Jira, Confluence

CERTIFICATIONS

- Google Cloud Certified Professional Data Engineer
- Google Data Analytics Professional
- Supervised Machine Learning - DeepLearning.AI
- SQL & Relational Databases - IBM
- Data Analysis with R programming - Google

WORK EXPERIENCE

DATA ENGINEER & ANALYST

COMCAST - *July 2023 – present*

- Developed ETL pipelines to extract data from Nexthink, JAMF, ServiceNow, and Intune using cloud APIs, integrating into an executive Power BI dashboard with Power Automate alerts—reduced device issue resolution time by 60%.

- Designed and implemented data pipelines and interactive dashboards to analyze product sales, performance, costs, and device error details—accelerated reporting cycles by 70% and minimized manual data analysis.

- Orchestrated a company-wide ticket intelligence dashboard, integrating resolution data from multiple teams and applying business logic to detect SLA breaches, root causes, and recurring issues.

- Automated meeting room analytics pipelines by ingesting CISCO sensor data and applying ML forecasting to predict utilization trends—improved space efficiency by 30% across global offices.

- Built a compliance monitoring system in Grafana using Microsoft Graph APIs (Intune, Entra), integrating proactive alerts to automate manual compliance checks.

- Conducted analytics and NLP on Tech Pulse survey responses to uncover key drivers of employee sentiment and provisioning issues, enabling the tech provisioning team to implement targeted process improvements and cost savings.

PROJECTS & AWARDS

- Predicted optimal weight to lift for trainees from bicep sEMG signals using ML models (AdaBoost, Random Forest) with 80% accuracy.
- Developed a cuffless BP monitoring technique using facial videos and remote PPG. Extracted IBI features and applied regression models to estimate BP; tested on 15 participants under varied conditions.
- Pneumonia Detection from X-ray Images: Built a CNN model (ResNet-18) to detect pneumonia using 26,684 X-ray images.
- **SMART INDIA HACKATHON 2022 - Winners:** Developed a smartphone application using React Native to predict vital parameters from face..