

# Branesh P

Date Engineer

Chennai | Mobile: +917598193064

LinkedIn: [braneshp24](#) | Email: [braneshp24@gmail.com](mailto:braneshp24@gmail.com) | Github: [branesh2k](#)

Data Engineer specializing in cloud-native pipelines (Airflow/Spark) and API development. Proven in optimizing AWS costs (25% reduction) and containerized deployments (70% faster).

---

## Skills

**Languages** - Python (FastAPI) | TypeScript (NestJS) | SQL | ReactJS

**Databases** - PostgreSQL | MySQL

**Cloud & BigData** - AWS (EMR | S3 | EC2 | CloudWatch), Apache Spark, Databricks, Data Modelling

**DevOps/Tools** - Docker, Git/Github, Apache Airflow

---

## Work Experience

**TerraFinn Technologies** | Data Engineering Intern

March 2025 - present

- Built and automated distributed data pipelines on AWS using Apache Airflow and Spark, orchestrated via EMR clusters
- Reduced compute cost by 25% by shifting from On-Demand to **Spot Instances** and tuning EMR bootstrap actions for specific workload sizes
- Developed production-ready applications using NestJS, FastAPI, and React
- Containerized applications using Docker, improving deployment efficiency by **70%**

---

## Project Experience

**Automated AWS EMR Pipeline** | Airflow, AWS EMR, Spark, S3, Cloudwatch | [github](#)

March 2025 - April 2025

- Implemented Airflow DAGs to trigger Spark jobs on AWS **EMR** with job-specific cluster configs
- Used custom cluster configuration scripts to allocate resources based on job type, reducing overall compute time by **40%**
- Processed datasets using Spark, reducing execution time by **40%**
- Enabled parameter passing using Airflow **XComs** and created custom **Sensors** to wait for EMR step completion
- Configured CloudWatch dashboards for real-time visibility into job execution and resource usage

**Tara API - Vehicle data management** | FastAPI, React, PostgreSQL | [github](#)

April 2025 - May 2025

- Developed a full-stack vehicle data management platform reducing manual data entry by **80%**
- Delivered **5+** RESTful API endpoints with JWT Authentication
- Built responsive, user-friendly interfaces in React, improving user efficiency by **50%**
- Containerized application and database services with Docker, achieving 100% reproducible deployments and reducing setup time by **70%**

**NestJs REST-API** | TypeScript, NestJS, JWT, PostgreSQL, Docker | [github](#)

May 2025 - July 2025

- Designed a modular NestJS application supporting **15+ REST endpoints** for CRUD operations on user data and uploaded files
- Integrated JWT auth with rate-limiting (5 requests/min) and enforced RBAC and request validation using pipes, reducing unauthorized access attempts by **90%**
- Integrated Cloudinary for secure file uploads with metadata support
- Used DTOs and Pipes for strong input validation and transformed request data for secure processing
- Achieved **100%** reproducible deployments using docker container

---

## Education

**Sri Ramakrishna Institute of Technology**

Coimbatore

Bachelor of Mechanical Engineering - CGPA: **7.8**

August 2017 - April 2021

---

## Certification

- Astronomer Certification for Apache Airflow 3 Fundamentals
- Awarded a Cambridge English Entry level certificate in ESOL International (level-3) Business preliminary