

Lokesh Reddy Thipparthi

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Summary

Data & AI Engineer with 3 years of experience in designing and deploying predictive models and analytical solutions. Skilled in Python, SQL, PySpark, and cloud-based data pipelines, improving data processing runtime by 30%. Expertise in machine learning, statistical modeling, multivariate data analysis, and feature engineering for actionable insights. Proficient in PowerBI, Databricks, and Excel for interactive dashboards and visualizations. Experienced in leading agile teams and delivering high-impact data-driven solutions.

Technical Skills

Programming Languages	Python, R, PL/SQL
Machine Learning & AI	Scikit-learn, TensorFlow, XGBoost, LightGBM, NLP, Deep Learning, PyTorch
Data Analysis & Statistics	Regression, Classification, Clustering, Time Series Analysis, Hypothesis Testing, Feature Engineering, Multivariate Analysis
Big Data & Cloud Platforms	Hadoop, Spark, Databricks, AWS, Azure, GCP, BigQuery, Redshift
Data Visualization & BI Tools	PowerBI, Tableau, Excel, Matplotlib, Looker
Database & Data Management	MySQL, PostgreSQL, NoSQL, MongoDB, Data warehousing, ETL pipelines, Data governance, Data modeling

Professional Experience

SPR Software Systems - Confiz

Jan 2025 – Present

Data & AI Engineer

- Developed machine learning models to analyze complex customer and product data, improving predictive accuracy of business outcomes by 18%.
- Designed and implemented scalable ETL pipelines using PySpark and SQL, optimizing data flow from multiple sources for real-time analytics.
- Engineered cloud-based analytical solutions on AWS, integrating large-scale datasets to enable scalable AI/ML model deployment and reducing processing time by 30%.
- Resolved high-dimensional multivariate data challenges through statistical and predictive modeling, reducing data processing errors.
- Built and maintained AI-driven data pipelines and automated workflows, improving model training efficiency and data availability by 20%.
- Implemented interactive dashboards and BI reports using PowerBI, Python, and Databricks, enabling executives to extract actionable insights and drive strategic decisions.

Krithi Cybersoft Pvt. Ltd

Aug 2019 – Aug 2022

Data Engineer

- Engineered scalable ETL pipelines using PySpark and SQL, automating data ingestion and transformation, reducing manual processing by 35%.
- Constructed and deployed predictive models in Python to analyze large datasets, improving sales forecasting and business strategy outcomes.
- Optimized database performance and query efficiency in MySQL and cloud environments, reducing data retrieval time by 30%.
- Developed interactive dashboards and reports in PowerBI and Excel, providing executives with actionable insights.
- Collaborated with analysts and engineers in Agile teams, mentoring juniors and ensuring timely delivery of analytics solutions.
- Integrated and maintained large-scale structured and unstructured datasets, improving data quality and consistency by 25% for advanced analytics and machine learning projects.

Projects

Predictive Failure Modeling for Hydrogen Powertrain Components Apr 2024 – May 2024

- Built a predictive model in Python using scikit-learn to assess failure risks in hydrogen powertrain components, helping improve reliability and reduce unplanned downtime.
- Explored multivariate sensor data and applied survival analysis to uncover failure patterns; shared insights through Power BI dashboards tailored for engineering teams.
- Simulated cloud deployment using PySpark and Azure to handle large-scale sensor data and enable scalable, real-time analytics.

Optimization and Analysis of Seamless Rocket Motor Tubes Jan 2018 – Mar 2018

- Designed and validated a simulation model for rocket motor tubes using ANSYS and MATLAB, improving structural performance predictions by 15% and ensuring safety compliance through high-pressure prototype testing.
- Performed stress and thermal analysis under extreme launch conditions, identified failure points, and collaborated on FEA-driven material and geometry optimization—achieving a 10% weight reduction without compromising strength.
- Documented optimization strategies and presented findings to senior engineers, enhancing team knowledge and earning recognition for innovative contributions.

Modeling and Analysis of Milan 2T Missile Fin Feb 2019 – May 2019

- Developed and refined 3D CAD models of Milan 2T missile fins using CATIA, ANSYS, and MATLAB—boosting precision, improving flight stability, and reducing design iterations by 15%.
- Enhanced fin geometry and material efficiency via FEA, achieving a 5% weight reduction while maintaining structural integrity; shared insights with senior engineers and earned recognition for innovation.

Education

Master of Science in Information Sciences and Systems Jan 2023 – May 2024 Trine University, Angola, Indiana, USA

Bachelor of Technology in Mechanical Engineering Jun 2016 – May 2020 Jawaharlal Nehru Technological University, Hyderabad, India

Certifications

- Databricks Certified Generative AI Engineer Associate - [Badge](#)
- Oracle Cloud Infrastructure 2025 Certified AI Foundations Associate - [Badge](#)
- Oracle Cloud Infrastructure 2025 Certified Generative AI Professional - [Badge](#)