

# YASWANTHREDDY VARIKUTI

## DATA AND AI ENGINEER

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## Summary

Data & AI Engineer with expertise in automating data pipelines, optimizing ETL processes, and deploying scalable cloud solutions. Skilled in machine learning, big data technologies, and cloud platforms like GCP, AWS, and Snowflake. Focused on improving system performance, integrating AI-driven analytics, and ensuring data accuracy for business insights. Experienced in developing secure, efficient workflows that enhance decision-making and operational efficiency across diverse industries.

## Experience

### Cognizant Technology (*Data and AI Engineer*)

June 2023 – Present

- Integrated **10TB+** of data across AWS, Teradata, and Snowflake, reducing query execution time by **40%**.
- Reduced manual efforts by 70% by automating 15+ data workflows, saving 50+ hours per month.
- Created **10+** AI driven automation tools & ML models, improving workflows & boosting productivity by 80%.
- Collaborated with **6+ cross-functional teams**, optimizing data pipelines and ensuring seamless integration with **Cloud Storage and Control-M**, minimized processing time by **30%**.
- Conducted **100+ data validation tests**, identifying inconsistencies and improving **data quality by 95%** for business intelligence and reporting.
- Revised ETL pipelines, improving data ingestion performance by **30%** across Cloud Storage and Control-M, ensuring effective **teamwork** and **collaboration** with cross-functional teams.
- Implemented **AI-based anomaly detection** for data inconsistencies, reducing data discrepancies by **98%**.
- Led training sessions for 20+ analysts, developers, and managers, fostering collaboration, mentorship, and effective delivery skills.

### Cognizant Technology (*Big Data Engineering Intern*)

January 2023 – May 2023

- Engineered over three data analysis models for hospital administration systems, decreasing patient data retrieval time by 40%.
- Optimized **10+ ETL workflows**, reducing the runtime by **30%** and reducing the data anomalies and integrity to less than **5%**.
- Designed a hospital database & ETL pipeline, achieving **80%** efficiency in data processing.
- Automated **50+ tasks** using Python & SQL, saving **20+ hours / week**.
- Mentored by **5+** senior data engineers, gaining hands-on expertise in big data, ML, and cloud technologies, demonstrating a willingness to **learn** and **open-mindedness**.

## Education

### GMRIT College | B. Tech in Electronics and communication Engineering

June 2018 – March 2022

- GPA:** 8.34 | **Minor:** IoT and Data Science.

### Narayana Junior College | Intermediate

June 2016 – March 2018

- Percentage:** 95% | **Major:** MPC

## Skills & Abilities

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- **Programming Languages:** Python, SQL, Java (intermediate), C (intermediate)
- **Big Data Technologies:** Spark, PySpark, Hadoop, Hive
- **Cloud Platforms:** Google Cloud Platform (GCP), AWS, Snowflake, Azure, Oracle Cloud infrastructure
- **Data Engineering & ETL:** Data Warehousing, ETL Pipelines, Control-M, Airflow, Data Migration
- **Databases & Storage:** MySQL, PostgreSQL, Big Query, Cloud Storage, NoSQL (MongoDB, Cassandra)
- **Data Analysis & Visualization:** Power BI, Excel (PowerPivot, Macros)
- **Machine Learning & AI:** Neural Networks, Image Processing, Generative AI, Deep Learning, NLP, chatbots, Scikit-learn, PyTorch, Keras, TensorFlow, NumPy
- **DevOps & Scripting:** Git, GitHub, Shell Scripting, PowerShell, Docker, Jenkins
- **API Integration & Workflow Automation:** REST API, Postman, CI/CD, Python Automation

## Certifications

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- Snowpro Core Certification – Snowflake | Expertise: Snowpark, streams, Tasks, Snow pipe, Compute, storage and Machine learning.
- AWS cloud Partitioner – Foundation – AWS | Expertise: Storage, Athena, IAM, EC2, EMR, Sage Maker, Machine learning.
- Azure Data Science & Machine learning – Microsoft | Expertise: Azure storage, Azure Machine learning Designer.
- Google Cloud Associate Engineer – GCP | Expertise: storage, Airflow, Pub/ sub, IAM, Machine Learning.
- AI Foundations Certification – Oracle Cloud | Expertise: Oracle cloud, Generative AI and Machine learning.
- SQL & Python Certifications – Hacker Rank
- IBM Watson & AI Badges – IBM
- Generative AI Certification – Cognizant | Expertise: Foundational Models, Prompt Engineering.
- Networking Fundamentals – Cisco
- Cybersecurity & Ethical Hacking – Google (Coursera)
- Project Management Professional – Google (Coursera)

## Projects

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### LFB Network for Robust Medical Segmentation

- Developed a Lightweight Feature Boosting (LFB) Network, improving segmentation accuracy by **15%**.
- Identified and rectified a critical image corruption issue affecting **5%** of incoming scans, personally correcting **500+** medical images to ensure accurate diagnoses and prevent potential misdiagnoses.
- Experimented machine learning model performance, reducing inference time by 30%, which significantly improved real-time diagnosis support and system responsiveness for medical applications.

### Iris Recognition and Feature Extraction for Smart Door

- Built and implemented an iris-based biometric authentication system, achieving 88.2% accuracy, enhancing security, identity verification, and fraud prevention capabilities in smart access control.
- Processed and analyzed over 5,000 iris images, improving feature differentiation by 20%, leading to enhanced recognition accuracy and robustness against varying environmental conditions.
- Accelerated biometric authentication speed, successfully reducing processing time by 35%.