

# Dharan Tej Pusthakala

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## PROFILE SUMMARY

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Software Engineer with 1 year and 7 months of experience architecting AI-driven RAG pipelines using LangGraph to orchestrate generative AI workflows with Azure Cognitive Search and OpenAI, adept at metadata enrichment and real-time SEO anomaly detection using PySpark, BigQuery, and GenAI.

## TECHNICAL SKILLS

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**Languages:** Python, SQL      **Tools/Framework:** PySpark, LangGraph, NumPy, Pandas, GitHub  
**General:** Data Structures, Algorithms, Machine Learning, GCP, Linux

## PROFESSIONAL EXPERIENCE

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### TEKsystems Global Services

#### Software Engineer

Dec'23 – June'25

- Architected and deployed a Retrieval-Augmented Generation (RAG) solution on the Azure ecosystem, leveraging Azure Cognitive Search and Azure OpenAI for document ingestion and semantic retrieval.
- Implemented Python pipelines for enterprise-grade PII anonymization and metadata enrichment using SpaCy NER and Faker.
- Developed and maintained Azure Functions and Cognitive Search indexes to automate JSON processing and enable semantic search.
- Built a real-time SEO anomaly detection framework with PySpark, BigQuery, and generative AI, slashing recovery time from one week to three hours (which is around 90% reduction in the recovery time) and boosting conversion rates.

### Research Centre Imarat (RCI), Defence Research & Development Organisation (DRDO), India

#### Software Engineer Intern

May'23 – Dec'23

- Automated and enhanced Avionics Test-bed precision using Python, optimized projectile testing, and developed embedded applications on ZynqSoC.
- Worked on Model-Based Software Development with Altair Embed and performed static/dynamic analysis of legacy code for MISRA standards using LDRA Tool.
- Implemented and tested MIL-STD 1553 communication protocol with hands-on experience on ARM-IMX8, Zynq Ultra-Scale, and MIL-STD 1553 interface boards.

## COURSES & CERTIFICATIONS

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AWS Certified Developer Associate - DVA C02

Data Bricks Certified Data Engineer Associate

## PROJECTS

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- **OBC In-Loop Test-bed Automation (OLTA)** - Led On-Board Computer (OBC) loop Test-bed automation, designing and implementing advanced test automation systems using python. Oversaw testing protocols, ensuring optimal performance and reliability in simulated operational environments. Contributed to Aerospace Technology innovation by pushing the boundaries of On-Board Computer systems.
- **Low Light Image Enhancement** - Developed a Convolutional Neural Network system for enhancing low-light images, improving object detection and scene understanding, while preserving original image content.

## ACHIEVEMENTS

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- Achieved a perfect 30/30 in the 2016 Australian National Chemistry Quiz (ANCQ) by RACI, earning a Certificate of Class Excellence and ranking Top 50 across India.
- Secured 96% percentile in the National Level E-Quiz on Chemistry by Kakatiya Institute of Technology and Science, Warangal, in June 2020.
- YouTuber managing Delta Edusmith (1.43K subscribers) for educational content and Delta Gamesmith for gaming content.
- Served as Video Editing Head for KMIT's Drama Club 'Abhinaya' and actively contributed to Abhinaya The Drama Club.
- Contributed to the 'Traces of Lenses' Photography Club and worked as a content writer at Blogger.com.

## EDUCATION

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**Keshav Memorial Institute of Technology, (JNTUH)**

Bachelor of Technology (B.Tech.)

Computer Science and Engineering

Hyderabad

2019-2023

GPA: 8/10