Emy Mariya Biju

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PROFESSIONAL SUMMARY

AI & Data Analyst with experience in machine learning, generative AI, computer vision, and analytics, focused on delivering business impact through technical solutions. Strong foundation in structured problem solving, stakeholder communication, and analytical thinking. Skilled in designing AI-driven solutions that support digital and operational transformation.

CORE SKILLS

Consulting Skills:

- Structured problem solving & analytical thinking

- Business analysis & requirement gathering

- Stakeholder communication & presentation

- Insight storytelling

- Strategy-focused AI solution design

Technical Skills:

- Python, OOP, OpenCV, LangChain, RAG, ChromaDB

- Machine Learning (SVM, Random Forest, K-Means), Deep Learning

- Generative AI & VLMs (HuggingFace, FLAN-T5, NVIDIA Cosmos, Qwen)

- YOLOv5/7/8, CV pipelines, model integration

- Power BI, Tableau, Qlik Sense, SQL

- Linux, Docker, Git

PROFESSIONAL EXPERIENCE

Tata Consultancy Services (TCS) — Data & AI Analyst (1 year 2 months)

Data Analytics & BI Development:

- Developed dashboards using Power BI, Tableau, and Qlik Sense improving KPI reporting efficiency by ~25%.

- Gathered requirements with cross-functional teams and converted business needs into analytical solutions.

- Automated workflows reducing reporting time and improving decision-making.

Machine Learning & Data Science:

- Built Wine Quality Prediction model using SVM, Random Forest, K-Means with improved accuracy through feature engineering.

- Created ML pipelines including data cleaning, training, validation, and reporting.

Computer Vision & Cognitive AI:

- Designed and trained custom YOLO models for accident detection.

- Integrated YOLO models with Axis Camera systems for real-time detection.

- Conducted benchmarking and model fine-tuning.

Generative AI & VLMs:

- Evaluated NVIDIA Cosmos and Qwen VLMs for theft detection.

- Performed prompt optimization and inference testing.

- Used Hugging Face ecosystem and transformer pipelines.

ACADEMIC & ADDITIONAL PROJECTS

AI-Powered Fitness Chatbot (Generative AI, RAG):

- Built RAG-based chatbot using LangChain, FLAN-T5, ChromaDB.

- Delivered personalized recommendations with optimized prompts.

YOLO-based Accident Detection System:

- Developed YOLO-based system for railway accident detection and alerting.

SDR Aerospace Communication (ISRO Collaboration):

- Built SDR prototype with RF and DSP.

- Demonstrated full communication pipeline.

EDUCATION

B.Tech (ECE) — TKM College of Engineering, KTU — CGPA: 9.51 (2024)

- Minor Spec: Python for ML

Class 12 (CBSE) — 97.2% (Top 1%)

Class 10 (CBSE) — 98.2% (Top 1%)

CERTIFICATIONS

- Power BI / Tableau

- Machine Learning / Data Science

- YOLO / CV

- Docker / Linux

ACHIEVEMENTS & LEADERSHIP

- Top 1% CBSE nationally

- Class Representative

- Hospitality Committee Head

- Student Coordinator

- Speaker at TCS forums