Diya Goswami

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Education

Vellore Institute of Technology — Bhopal, India
B. Tech in Computer Science and Engineering 8.98 CGPA — *Nov. 2022 – Oct. 2026*

Technical Skills

Languages: Java, Python, C++, SQL
Frameworks and Libraries: TensorFlow, PyTorch, Scikit-learn, Pandas, NumPy, Keras, Matplotlib
Generative AILLMs, RAG, LangChain, LangGraph, Vector Databases(ChromaDB)
Developer Tools: GitHub, Jupyter, Google Colab, Tableau, VS Code, IntelliJ
Other Skills: Data Structures, Problem Solving, Machine Learning, Deep Learning, Generative AI

Experience

Software Engineer Intern — Dec. 2025 – Present
YugaYatra Retail (OPC) Private Limited — *Remote*

- Applied prompt engineering techniques to support web development and AI-driven workflows
- Contributed to real-time projects using modern tools, collaborating effectively with cross-functional teams

Projects

EchoRetail | *Python, PyTorch, GAN, Gemini LLM, ChromaDB, RAG* — Aug. 2025 – Oct. 2025

- Built a GAN-based synthetic data generator to create 10,000+ privacy-safe retail transactions for analytics
- Implemented a RAG pipeline enabling fast, context-aware insights from large volumes of customer reviews
- Developed an NLP analytics pipeline for sentiment analysis, thematic clustering, and trend discovery across unstructured text data
- Optimized data processing and retrieval workflows to support real-time, reliable insight generation

CardiaSynth | *Python, CTGAN, VAE, Table Diffusion, ML algorithms* — Jan 2025 – May 2025

- Engineered a multi-model synthetic data pipeline using CTGAN, VAE, and table diffusion to balance cardiac datasets, improving ML accuracy by 15–20 percentage across 5 algorithms
- Built an ensemble learning framework (SVM, XGBoost, CNN, Ridge, KNN) achieving 85.85 percentage accuracy and 0.86 F1-score across 3 synthetic datasets
- Evaluated model performance using detailed error analysis and confusion matrix optimization
- Reduced false negatives by 0.25, enhancing reliability for cardiac risk prediction

SkinSight | *Python, CNN, ResNet-50, Haar Cascade, Raspberry Pi* — June 2024 – Nov. 2024

- Developed a real-time skin type detection system using CNN, ResNet-50, and Haar Cascade, deployed on Raspberry Pi 5 with .80 accuracy and consistent 76–81 percentage per-class performance
- Optimized models using TensorFlow Lite quantization to achieve sub-second inference latency on resource-constrained edge hardware
- Designed a clinically adaptive hardware–software interface integrating LED illumination and a one-way mirror display for controlled image capture
- Ensured reliable edge deployment and real-time processing, maintaining stable performance under practical operating conditions

Publications and Conferences

International Conference on Data Computation and Communication — Nov. 2024
Presented and published research work on the utilization of ML in alerting cardiac issues — *Bhopal, India*

International Conference on Emerging Trends in ESM — April 2025
Presented a device for the dermatological industry for real time skin type detection — *Bhopal, India*

Achievements

Smart India Hackathon 2024 Finalist
Participated at the SIH 2024 and reached the finals under the hardware section by building a waterless spittoon station

JHU and VITB Health Hackathon 2025 Finalist
Among the top teams at the VIT–Johns Hopkins Health Hackathon for an Emergency Hospital Locator & First Aid solution

Co-Curricular and Extra-Curricular

Research Team, Eureka Club, Core Member
Participated and contributed in numerous new innovative research related work along with organizing multiple events

Fine Arts Club, Active Member
Participated in collaborative and engaging activities showcasing creativity, communication and networking skills

Coding Profiles
Achieved ratings of 956 in Codeforces, 137108 in CodeChef, 224845 in LeetCode and solved more than 700 problems

Certifications

Coursera Google Data Analytics
FutureSkills Generative AI Fluency
Problem Solver DSA by FacePrep
Oracle Java Foundations
IBM Blockchain Fundamentals and Developers