Chahat Upadhyay

Github | chahatupadhyay0805@gmail.com
+91 9929623266 | LinkedIn

Education

Vellore Institute of Technology, Bhopal Madhya Pradesh — July 2022 – Current
B.Tech. in Computer Science Engineering — CGPA: 9.11

Kendriya Vidyalaya School, Banswara Rajasthan — April 2021 – June 2022
12th Grade — Percentage: 93.80%

Core Skills

Programming Languages: Core-Java, Python, C, C++, JavaScript, HTML, CSS, PHP
Machine Learning & AI: NLP, Transformer, Generative Models, Computer Vision, CNN, Deep Learning, Unstructured Data Processing
Database Management: MySQL, Database Architecture optimization, Query Performance Tuning
Soft Skills: Data-Driven Decision Making, Collaborative Teamwork Effective, Project Management, Precision in Execution

Projects

Log-Based Error Classification (BERT, LLM, Regex-Python)

- Architected a hybrid error-classification pipeline combining regex parsing, sentence-transformer embeddings, and Groq-powered LLM calls that processed over 1 million log entries per day with 99% uptime.
- Engineered an intelligent routing layer that dynamically selected regex for 65% of structured logs, transformer-based models for 30% of mid-complexity entries, and LLM fallback for the remaining 5%, reducing manual triage by 85% leveraging confidence scoring and lightweight heuristics to ensure optimal model invocation and maintain sub-second processing latency.
- Optimized the embedding-to-classifier workflow using all-mpnet-base-v2 vectors and logistic regression to achieve a macro F1-score of 0.98 and average precision/recall above 0.99 across five error categories.

R.A.K.T. रक्त आपूर्ति केंद्र तंत्र (PHP, MySQL, XAMPP)

- Designed and deployed a dual-role web portal supporting 10,000+ users, streamlining donor scheduling by 30% through an automated booking interface filtering by blood type and Pin-code.
- Automated email confirmations and inventory alerts, reducing administrative follow-up tasks by 35% and boosting donor engagement by 20% during critical shortage alerts.
- Engineered a synchronized patient request engine leveraging optimized SQL queries and district-level pin-code matching to route blood requests in real time, reducing request-to-fulfillment cycle time by 70%, improving supply-demand accuracy by 40%, and generating automated weekly demand-forecast reports for hospital admins.

Jelly-Fish Classification (VGG16, DenseNet121, Flask)

- Developed a transfer-learning pipeline on VGG16, ResNet50, DenseNet121, and EfficientNet-B0, expanding a 900-image dataset to 3,600 via augmentation and delivering a peak accuracy of 98.0% on DenseNet121.
- Built and containerized a Flask-based web UI on Google Cloud, reducing end-to-end image-classification latency by 40% and supporting 500 concurrent research queries per hour.
- Streamlined preprocessing batch resizing, normalization, and noise reduction achieving a 25% faster training throughput and a 15% improvement in model generalization on unseen translucent species of jellyfish.

Achievements & Certifications

Achievements

- TCS Codevita (Season 12, 2025)
  Secured a global rank of 249 out of 600,000 participants across 96 countries, placing in the top 0.05% globally and advancing through all coding rounds to reach the prestigious final phase.
- Top 5% Adobe Gen-Solve Hackathon (2024)
  Worked on a problem statement to detect and predict user-drawn imperfect images of varying shapes and sizes using CNN and GAN architectures with TensorFlow & OpenCV to preprocess sketches, perform shape classification and synthesize realistic outputs.

Certification:

- Bits & Bytes Course-Era (December 2023)
  Acquired expertise in core principles, including system architecture, network protocols & foundational workings of the internet.
- Top 5% Cloud Computing Course (NPTEL, IIT KGP 2024)
  Achieved a silver medal scoring 84 percentage marks, depicting practical knowledge in handling and deploying application on cloud.
- Artificial Intelligence Powered by Google Developers
  Successfully completed the AI driven course with Merit of 93.90%, showing in-depth expertise in Deep Learning & Machine Learning.