Chahat Upadhyay

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Education

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

Kendriya Vidyalaya School — May 2022
12th Grade — *Percentage: 93.8%*

Skills

Languages & Frameworks: Java, Python, C, C++, SQL, JavaScript, HTML, CSS, Pytorch

Tools & Technologies: Git, MySQL, Gradio, Docker, Google Colab, AWS, Grok, Tensorflow

Softs Skills: Cross-functional Collaboration, Strategic Technical Communication, Operational Excellence, Agile Mindset

Projects

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

- Architected a hybrid error classification pipeline combining regex parsing, sentence transformer embeddings, and Groq powered LLM calls that can process large CSV log entries 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%.
- 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 an average precision ratio of above 0.99 across five error categories.

R.A.K.T (PHP, MySQL, XAMPP)

- Designed and deployed a dual role web portal that supports multiple users, facilitating donor scheduling by 30% through a self-operating booking interface filtering by blood type and pin code.
- Systematized 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-delivery cycle time by 70%.

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 by augmentation and delivering a peak accuracy of 98.4% 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 batch preprocessing through resizing, normalization, and noise reduction achieving a 25% faster training throughput and a 15% improvement in model generalization on unseen translucent species of jellyfish.

Certifications

- **SmartBridge —** Completed the AI + Google Cloud driven course with Merit of 93.90%.
- **Oracle Java Developer Professional —** Successfully concluded the Java development on Orcale Cloud course.
- **SoloLearn SQL —** Gained experience handling the concept and queries of relational databases.

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.
- **Adobe Gen-Solve Hackathon (2024) -** Competed in the top 5% worldwide and provided a solution to detect and predict imperfect images drawn by users of different shapes and sizes.
- **NPTEL Cloud Computing and Marketing Analytics -** Ranked in the top 5% among 23,000+ learners in Cloud Computing and 1,500+ in Marketing Analytics.