Vishu Gupta

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Education

- **Guru Gobind Singh Indraprastha University** — New Delhi, India
  *B.Tech in Artificial Intelligence and Machine Learning (CGPA: **8.54**)* — *2021 – 2025*

Technical Skills

- **Languages**: Python, Java, SQL
  AI/ML: NLP, Deep Learning, LLMs, RAG, Time Series
  Tools: Pandas, Scikit-learn, OpenCV, Power BI, Git
  Concepts: OOP, Data Structures, ETL Pipelines

Experience

- **CBSL Groups** — Jul 2024 – Aug 2024
  Software Engineer Intern — *Gurugram, India*
  - Designed and implemented an end-to-end ETL pipeline using Python and Talend to process and migrate 50,000+ records into a centralized SQL database.
  - Optimized SQL queries and indexing strategies, reducing data retrieval latency by 30% and improving reporting efficiency.
  - Collaborated with cross-functional teams to gather business requirements and translate them into scalable data engineering solutions.
  - Performed data cleaning, transformation, and validation to ensure high data quality and consistency across systems.
  - Automated repetitive data workflows, significantly reducing manual effort and improving operational productivity.

Projects

- **RAG-Based Document Intelligence System** | *LangChain, LLMs, FastAPI*
  - Developed a Retrieval-Augmented Generation (RAG) system to enable intelligent querying over large document datasets.
  - Integrated LLMs with vector databases to retrieve contextually relevant information and improve response accuracy.
  - Built REST APIs using FastAPI to support scalable and real-time query handling.
  - Implemented efficient document chunking and embedding strategies to optimize retrieval performance.
- **Real-Time Driver Alert System** | *Python, OpenCV*
  - Engineered a real-time driver monitoring system using computer vision to detect drowsiness through facial landmark tracking.
  - Implemented eye aspect ratio (EAR) and blink detection algorithms for accurate fatigue detection.
  - Designed a latency-sensitive alert mechanism to notify drivers instantly and prevent potential accidents.
  - Optimized the system for low-light conditions using image preprocessing techniques for reliable 24/7 performance.
  - Enhanced model robustness through real-time video stream processing and efficient frame handling.

Certifications and Achievements

- **AIR 73:** SSC TECH- 66 (ARMY)
  Stanford (Online): Unsupervised Learning, Recommenders, Reinforcement Learning
  Udemy: Python Bootcamp