Parth Saxena

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Education

Vellore Institute of Technology, Bhopal Aug 2022 – Present
Integrated M.Tech in Artificial Intelligence (CGPA: 8.34) *Bhopal, Madhya Pradesh*

- Relevant Coursework: Operating Systems, Data Structures & Algorithms, Database Management Systems, Computer Networks, Machine Learning, Artificial Neural Network

Technical Skills

Languages: Python, SQL
Frameworks: NumPy, Pandas, Scikit-learn, Keras, TensorFlow, NLTK, LangChain
AI Systems & Architectures: RAG, Agentic AI Systems, Vector Search Pipelines
Tools & Others: GitHub, Google Colab, VS Code, Jupyter Notebook, PyCharm, LangFlow

Experience

Sahib AI Feb 2026 – Mar 2026
AI Engineer (Remote) *Dubai, UAE*

- Engineered a production-grade LLM-based Agentic AI system using LangChain, enabling autonomous reasoning, tool usage, and retrieval workflows, achieving 98% response accuracy and 40% reduction in end-to-end latency.
- Designed and scaled RAG pipelines, supporting 10k+ monthly queries, improving system reliability by 30%, and enabling seamless deployment across cloud-native infrastructure.

Vellicate Technologies Pvt. Ltd. May 2025 – Dec 2025
Software Development & AI Intern (On-site) *Bangalore, India*

- Leddevelopment of a scalable Agentic AI system using LangChain, Gemini API, and FAISS, achieving 98% retrieval accuracy and 70% faster query resolution, alongside an NLP-based community platform serving 1,000+ active users.
- Built scalable e-commerce platforms for Saxandroy and Trao, integrating Razorpay (99%+ reliability) and AI-driven LMS features including multilingual audio and video enhancement.

Rekniq Consultants Jan 2025 – Mar 2025
Web Development Intern (Remote) *Bhubaneswar, India*

- Led end-to-end web development and UI/UX redesign of a corporate website, enhancing visual consistency, information architecture, navigation flow, accessibility, and cross-device responsiveness.
- Designed and deployed a scalable e-commerce platform with optimized performance and production-ready architecture.

Projects

PaperMind: AI Research Assistant | *Python, RAG , LangChain, Gemini API, FAISS, Streamlit* Dec 2025

- Architected and deployed a production-grade Retrieval-Augmented Generation (RAG) system using LangChain and Gemini 2.5, reducing research analysis time by 70% through automated knowledge extraction.
- Engineered FAISS vector search pipelines for semantic retrieval, achieving 98% accuracy on 25+ research papers.
- Optimized embedding pipelines by leveraging RecursiveCharacterTextSplitter and custom batch processing with exponential backoff, reducing embedding latency by 45% and ensuring 100% reliability against API rate limits.
- Developed a Streamlit interface with persistent session memory and hybrid search, improving research efficiency by 50%.

Anemia Detection using Conjunctiva Images | *Python, ML, OpenCV, TensorFlow, Keras* Feb 2025

- Achieved 93% accuracy in predicting anemia disease using CNN and 95% post-scaling with Random Forest Classifier.
- Gathered a comprehensive dataset of conjunctiva images containing 4,262 images across both anemic and non-anemic classes, ensuring data quality and integrity through preprocessing steps.
- Employed Random Forests for classification, leveraging extracted features of CNN to accurately identify anemic conditions from images.
- Secured a 96% recall rate for anemia detection using Random Forest, demonstrating robust algorithmic implementation.

Achievements & Extracurricular Activities

- Published a research paper on AI-powered anemia detection using CNN and Random Forest in TANZ Journal (Scopus & UGC Approved), Vol. 20, Issue 08, 2025.
- Led my team to the Semi-finals of the Bharat GenAI Challenge, organized IIT Bombay.
- Leadership: Drove PR and secured sponsorships across 2 student clubs, leading 10+ successful events.
- Completed *Applied Machine Learning in Python* (University of Michigan, Coursera).
- Completed *Cloud Computing* (IIT Kharagpur, NPTEL).