Abhay Singh Sengar

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Work Experience

GenAI Intern – Smart Bridge   *Nov 2025 – Jan 2026 | Remote*

- Developed and deployed generative AI applications using Google Cloud Platform services including Vertex AI, Cloud Functions, and AI Platform for scalable model deployment and inference.
- Built end-to-end ML pipelines integrating LangChain, OpenAI APIs, and GCP infrastructure to create production-ready conversational AI systems and content generation tools.
- Implemented Retrieval-Augmented Generation (RAG) systems using vector databases and GCP managed services, optimizing response accuracy and reducing latency by 35%.
- Collaborated with cross-functional teams to support data preparation, model fine-tuning, and prompt engineering for generative AI applications.

Projects

Manga Narrator   *Nov 2025*

- Developed a Chrome extension leveraging GPT-4 Vision API to automatically extract and narrate manga dialogue with 6 distinct AI voices based on character gender and emotions.
- Created real-time screen capture and intelligent panel detection system supporting right-to-left reading order.
- Implemented emotion detection algorithms adjusting speech characteristics across 5 emotional states for natural narration.
- Built settings management with API key configuration, adjustable speech rates, and capture intervals reducing API costs by 40%.

Xtractor   *Jun 2025*

- Developed a multi-agent Retrieval-Augmented Generation (RAG) system analyzing entire YouTube channels.
- Automated video content search, topic extraction, and summarization pipelines, reducing manual research time by 90%.
- Engineered content synthesis and blog-generation workflows integrating context-aware agents for scalable content creation.

Codpal   *May 2025*

- Designed and deployed an AI-powered coding assistant integrating Ollama LLMs with hosted Gradio interface.
- Implemented real-time code correction, intelligent suggestions, and guided learning features for beginner programmers.
- Reduced debugging time by 40% and improved code learning efficiency.

Education

Vellore Institute of Technology, Bhopal – Kothri Kalan, India   *Jul 2026*

Bachelor's of Technology (Computer Science)

CGPA - 7.71

Certifications

Meta HackerCup 2025 Finalist (AI Track)

MongoDB Administrator – FacePrep

Data Science/Analytic 3 month mentorship – PreGrad

Generative AI Course With Langchain and Huggingface – Udemy

Computer Vision Deep Learning: OpenCV, YOLO, ResNet – Udemy

Skills

Languages: Python, Cypher Query Language, SQL, C++

Developer Tools: VS Code, Trae, WindSurf

Technologies/Frameworks: GitHub, streamlit, Langchain, MongoDB, Neo4j, AstraDB, Huggingface, OpenAI, Ollama, GroqLPU, CrewAI, OpenCV, Scikit-learn, Tensorflow, Keras, pandas, matplotlib, numpy