ABHAY SINGH SENGAR

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EDUCATION

VIT Bhopal University   **Sep 2022 – July 2026**
*Bachelor's of Technology(Computer Science) - **CGPA** - **7.71***   *Kothri Kalan, India*

Sagar Public School, Saket Nagar   **Jun 2021 – Jul 2022**
*AISSCE - Science Stream - **CGPA** - **8.4***   *Bhopal, India*

EXPERIENCE

Smart Bridge   **Nov 2025 – Jan 2026**
GenAI Intern   *Remote*
- Developed and deployed generative AI applications leveraging 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 RAG (Retrieval-Augmented Generation) systems using vector databases and GCP's managed services, optimizing response accuracy and reducing latency by 35%.

PROJECTS

Manga Narrator ⧉ | Chrome Extension, JavaScript, OpenAI-TTS HD, OpneAI-Vision 4   **Nov 2025**
- Built 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.
- Developed real-time screen capture system processing manga panels every 10 seconds with intelligent panel detection supporting right-to-left reading order.
- Implemented emotion detection algorithm adjusting speech characteristics across 5 emotional states (excitement, sadness, anger, surprise, whisper) for natural narration flow.
- Created settings management system with API key configuration, adjustable speech rates (0.5x-2.0x), and customizable capture intervals reducing API costs by 40%.

Xtractor ⧉ | Langchain, CrewAI, OpenAI   **Jun 2025**
- Developed a multi-agent Retrieval-Augmented Generation (RAG) system to analyze and process entire YouTube channels.
- Automated video content search, topic extraction, and summarization pipelines, significantly cutting manual research time.
- Engineered a content synthesis and blog-generation workflow integrating context-aware agents for scalable content creation.
- Achieved 90% reduction in research effort, enabling automated long-form content generation.

Codpal ⧉ | Langchain, Gradio, Ollama   **May 2025**
- Designed and deployed an AI-powered coding assistant integrating Ollama LLMs with a hosted Gradio.
- Implemented real-time code correction, intelligent suggestions, and guided learning features for beginner programmers.
- Built a user-centric interface ensuring seamless communication between local AI inference and cloud-based deployment.
- Reduced debugging time for new developers by 40 percent and improved code learning efficiency.

TECHNICAL SKILLS

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

ACHIEVEMENTS & 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