

Abhinav Singh

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🌐 LinkedIn

🐙 GitHub

🔗 Portfolio

EDUCATION

Vellore Institute of Technology, Bhopal

Bachelor of Science in Computer Science

Expected Sept 2026

SKILLS

Languages: Python, SQL, HTML/CSS

AI & Machine Learning: Deep Learning, NLP, Computer Vision, TensorFlow, Keras, PyTorch, Scikit-Learn, Hugging Face, LLMs

Backend: RESTful APIs, MongoDB, SQL

Tools: Git, Docker, Google Cloud Platform (GCP), MATLAB, Linux/Unix

Professional: Agile Development, Team Leadership, Problem Solving, Technical Writing

PROJECTS

DocaCast: AI-Powered PDF Reader with Podcast Generation

[GitHub](#)

React, TypeScript, Python, FastAPI, Google Gemini AI, Adobe PDF Embed API, Docker

- Developed a full-stack web application for an Adobe Hackathon that transforms PDF documents into engaging, multi-speaker podcasts using AI.
- Engineered a backend with FastAPI and Google's Gemini AI to analyze PDF content, generate conversational scripts, and synthesize audio with advanced Text-to-Speech technology.
- Integrated Adobe PDF Embed API for a seamless document reading experience and implemented a cross-document insight generation feature.

EduGenie: AI-Powered Educational Platform

[GitHub](#) | [Live Site](#)

React, TypeScript, Google's Gemini API, Firebase (Auth, Firestore, Storage), Tailwind CSS

- Architected a full-stack AI platform that automates course creation from YouTube videos and PDF syllabi, reducing content setup time for educators by 90%.
- Engineered a core AI engine leveraging Google's Gemini API to dynamically generate a personalized learning suite, including contextual notes, flashcards, and adaptive quizzes.
- Implemented a scalable backend using Firebase for secure user authentication, real-time data persistence, and media handling, ensuring a responsive and seamless user experience.

Beru: Multi-Modal AI Personal Assistant

[GitHub](#)

Python, NLP, Groq, Cohere, Hugging Face, PyQt5

- Engineered a high-performance, multi-modal AI assistant in Python, integrating advanced Speech-to-Text and NLP to cut query latency by 30%.
- Integrated multiple third-party AI models (Groq, Cohere, Hugging Face) to enhance response intelligence, context awareness and image generation, achieving a 95% success rate in recognizing multi-language user intent.
- Designed and built a modern, intuitive Graphical User Interface (GUI) with PyQt5, focusing on user-centric design principles to improve overall accessibility.

EXTRACURRICULAR ACTIVITIES

Linpack Club

Dec 2023 – Aug 2025

Technical Lead

University Campus

- Led a technical team of 5+ students, overseeing 5+ MATLAB-based projects and co-organizing a university-wide hackathon with over 200 participants to foster innovation and collaboration.

CERTIFICATIONS

- * Machine Learning Specialization, DeepLearning.AI, Stanford University, Jun 2024 ([Link](#))
- * Cloud Computing, NPTEL, May 2024 ([Link](#))
- * Complete Ethical Hacking Bootcamp, Udemy, Dec 2024 ([Link](#))
- * The Bits and Bytes of Computer Networking, Google, Dec 2023 ([Link](#))