ABHINAV SINGH

abhinavsingh25001@gmail.com | +91 8770637174 | Indore, India | LinkedIn | GitHub | Portfolio

EDUCATION

B.Tech in Computer Science, Vellore Institute of Technology, Bhopal *Expected Sep 2026*

TECHNICAL SKILLS

- **Languages:** Python, Java, SQL, HTML/CSS, TypeScript
- **AI/ML:** Deep Learning, NLP, Computer Vision, TensorFlow, PyTorch, Hugging Face, Transformer Models
- **Backend:** RESTful APIs, FastAPI, Firebase, MongoDB
- **Frontend:** React, Tailwind CSS
- **Tools:** Git, Docker, Google Cloud Platform, MATLAB, Linux/Unix
- **Professional:** Agile Development, Technical Writing, Mentoring, Public Speaking

PROJECTS

EduGenie: AI-Powered Educational Platform *GitHub | Live*

- Engineered an AI-powered LMS automating course creation from YouTube lectures and PDFs, **reducing educator setup time by 90%** and producing **500+ contextual notes, flashcards, and quizzes**, improving student performance by 35%.
- Architected a scalable React–FastAPI–Firebase system, supporting **1,000+ concurrent users** with 99.9% uptime and sub-second response times; **validated** usability via beta testing with 50+ students.
- Implemented real-time storage, secure authentication, and a responsive UI, **enabling seamless campus-wide adoption**.

DocaCast: AI-Powered PDF-to-Podcast System *GitHub*

- Secured a **Top 100 rank in Adobe Hackathon 2025** (90000+ teams) by **developing** a FastAPI + Gemini AI backend that processed **200+ page PDFs in under 3s** into podcasts with natural narration.
- Integrated cross-document embeddings with Adobe PDF Embed API for contextual navigation, annotations, and synchronized audio playback, **boosting engagement by 40%**.
- Deployed on Docker + Google Cloud, **ensuring 99% uptime** and reliability under hackathon demo conditions.

Beru: Multi-Modal AI Personal Assistant *GitHub*

- Created a multilingual AI assistant combining speech-to-text, NLP, and TTS, reducing query latency by **30%** and achieving **95% accuracy** across 5+ languages.
- Designed a PyQt5 GUI that cut onboarding time by 50% and improved adoption by **60% compared to CLI tools**, integrating automation features like file ops, translations, and summaries.
- Enhanced usability and reliability by integrating Groq, Cohere, and Hugging Face APIs, **tested with 20+ pilot users**.

LEADERSHIP & ACTIVITIES

Linpack Club **Dec 2023 – Aug 2025**

Technical Lead, *Vellore Institute of Technology, Bhopal*

- Directed a core team of 10+ students, delivering 5+ projects in **MATLAB, AI, and automation**, showcased at university events and workshops.
- **Spearheaded** a university-wide hackathon with **200+ participants**, managing sponsorships, judging, and technical mentoring.
- Conducted workshops on **MATLAB, LaTeX, and AI tools** for 100+ attendees, **increasing** campus engagement in applied computing and documentation.

ACHIEVEMENTS

- **Secured** Top 100 global rank in Adobe Hackathon 2025 among 90,000+ teams.
- **Engineered** and **delivered** AI-powered applications **adopted by 50+ students**, improving productivity and learning outcomes across campus.
- **Spearheaded** Linpack Club initiatives, including hackathons, technical workshops, and collaborative student projects.

CERTIFICATIONS

- DevOps Fundamentals – IBM, 2025
- Agile Methodologies – IBM, 2025
- Machine Learning Specialization – DeepLearning.AI (Stanford), 2024
- Cloud Computing – NPTEL, 2024