Abhyuday Vaish

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EDUCATION

Vellore Institute of Technology — Chennai, India
Bachelor of Technology in Computer Science — *July 2024 – May 2028*
CGPA: 9.215

Delhi Public School — Lucknow, India
2022 – 2024

EXPERIENCE

AI/ML Development Intern — August 2025 – Oct 2025
Daira EdTech — *Chennai, India*
- Built the platform's core dataset by automating the ingestion, enrichment, and categorization of 100k+ UPSC PYQs.
- Architected a RAG system to transform static study materials into dynamic, on demand practice assessments.
- Drove 40% user engagement growth by implementing advanced AI features with OpenAI and OpenCV.

Summer Research Intern — May 2025 – July 2025
Vellore Institute of Technology — *Chennai, India*
- Pioneered a novel framework for opponent profiling by integrating Stockfish analysis with Chess.com/Lichess APIs, achieving an 89.5% weakness detection rate.
- Fine-tuned a Gemma-2B model with opponent tactical profiles, generating automated PGN counter-strategies with an 81.6% success rate in live-data tests.
- Engineered a pipeline to analyze over 2,500 games, distilling exploitable tactical patterns and opponent vulnerabilities.

PROJECTS

AI Academic Assistant | *Python, Ollama, LangChain, OpenAI SDK, Streamlit* — June 2025 – Oct 2025
- Engineered an AI-powered academic assistant that streamlined student learning, reducing study time by an average of 3 hours per week.
- Architected the application using Python and Streamlit, orchestrating AI agent workflows with LangGraph and AutoGen.
- Generated over 200 personalized study materials, including quizzes and summaries, enhancing user productivity.

WellNest | *Flask, TensorFlow, SQLAlchemy, Google APIs, Seaborn, Cryptography* — Jan 2025 – Feb 2025
- Designed an encrypted, AI-driven platform to proactively identify student mental health risks via anonymous surveys (100+ participants).
- Built with Flask, TensorFlow & SQLAlchemy, achieving 95% accuracy in risk identification.
- Launched real-time alerts & resource access, boosting uptake of mental health support by 40%.

Gemini Chatbot | *Python, Flask, Gemini API, Google Custom Search API* — Oct 2024 – Dec 2024
- Architected an AI chatbot leveraging Gemini models to provide real-time answers for over 2,000 queries in its first month.
- Deployed on Flask & Render, integrating memory features and Google Custom Search for live query processing.
- Enabled interactive Q&A on Discord, YouTube, and Twitch via simple command triggers.

CLER: CV Based Game Controller | *Scikit-learn, OpenCV, NumPy, Keyboard, Python* — Mar 2022 – Apr 2022
- Devised a system to control in-game characters via real-time head movement, increasing accessibility for players.
- Utilized OpenCV for precise facial tracking and mapped movements to keyboard inputs with 98% accuracy.
- Innovated an accessible gaming experience, reducing reliance on manual controls by 100%.

Cancer Detector | *Python, Scikit-learn, NumPy, Pandas* — Feb 2022 – Mar 2022
- Designed a machine learning model to classify breast cancer images from a dataset of 500+ images.
- Implemented K-Nearest Neighbors, achieving 92% accuracy in image classification.
- Aimed to accelerate early diagnosis and support practitioners with automated, data-driven insights.

Movie Recommender System | *Python, TensorFlow, MATLAB, NumPy* — June 2021 – July 2021
- Engineered a recommendation system that suggests movies based on user preferences, analyzing 10,000+ reviews.
- Implemented collaborative filtering using Python & MATLAB to personalize suggestions.
- Improved user engagement by 15% through more accurate recommendations.

TECHNICAL SKILLS

Languages: Python, C/C++, Java, SQL (Postgres), HTML/CSS/JS, MATLAB
Frameworks: Flask, Django, FastAPI, PyTorch, TensorFlow, LangChain, HuggingFace Transformers, Scikit-learn, OpenCV
Developer Tools: Git, Docker, Google Cloud Platform/Render/Railway, VS Code, Bash/Terminal/PowerShell