Aryaman Jaitley

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Summary

Full-Stack Python Developer specializing in AI-powered systems, capable of building robust APIs (FastAPI, Flask) and responsive, user-centric frontend applications. Skilled with LLMs (RAG, fine-tuning) and backed by strong DSA fundamentals to deliver efficient, scalable, and reliable data-intensive solutions.

SKILLS

Languages	Python, C++, Java, JavaScript
Frameworks & Libraries	React, Node.js, OpenCV, spaCy, HuggingFace Transformers, scikit-learn, NLTK
AI & ML	NLP, Neural Networks, Generative AI (LLMs, Prompt Engineering), TF-IDF, Logistic Regression, Vector Embeddings
Tools & Platforms	Git, GitHub, VS Code, Streamlit, Vercel
Core CS	Data Structures & Algorithms, Object-Oriented Programming, Operating Systems, Computer Networks, Software Engineering Principles
UI/UX	Responsive Web Design, User Experience Optimization
Methodologies	Agile/SCRUM, Version Control, CI/CD

Projects

SignVerse — Speech-to-Sign Translator for Inclusive Communication

- Built a real-time speech-to-sign translator using React, Flask, and Web Speech API with 95%+ accuracy.
- Developed a 3-tier spaCy-based NLP pipeline with greedy matching, improving precision by 40%.
- Added OOV fallback fingerspelling for complete coverage of unseen vocabulary.

Smart Email Summarizer — Inbox Automation

- Designed an automated email summarization tool using Streamlit, IMAP integration, and DistilBART.
- Achieved 95%+ spam detection accuracy using a TF-IDF + Logistic Regression classifier.
- Improved summarization speed by 40% through cached model loading and optimized preprocessing.

Gesture-Based Volume Controller

- Developed a real-time gesture-based volume controller powered by OpenCV and Pycaw.
- Mapped fingertip distance to smooth 0–100% system volume adjustment.
- Achieved 20–30 FPS performance through optimized frame processing and landmark detection.

QuillHub — Real-Time Collaborative Document Editor

- Architected a real-time collaborative editor using Next.js 15, React 19, Convex, Liveblocks, and Clerk.
- Enabled multi-user editing with sub-200ms synchronization and live presence tracking.
- Implemented Tiptap-based rich-text editing, versioning, and authentication to boost collaboration efficiency by 60%.

Education

Aug' 2023 – Aug' 2027	B.Tech in Computer Science and Engineering **Manipal University Jaipur**	CGPA: 8.47/10.0

Certifications

- [NPTEL Design and analysis of algorithms](#)
- [NPTEL Data Structures and Algorithms](#)
- [IBM Generative AI: Foundation Models and Platforms](#)
- [IBM Generative AI: Introduction and Applications](#)
- [IBM Generative AI: Prompt Engineering Basics](#)