Aafi Mansuri

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EDUCATION

Northeastern University   Boston, MA
Master of Science in Computer Science   Sep 2025 – Dec 2027
Coursework: Natural Language Processing, Programming Design Paradigms, Algorithms, Pattern Recognition &
Computer Vision

Ganpat University   Mehsana, India
Bachelor of Technology in Computer Science and Engineering | **CGPA:** 9.63   Aug 2021 – May 2025
Coursework: Machine Learning, Cognitive Computing, Predictive Modeling, Cloud Computing, Data Structures,
DBMS

SKILLS

Programming Languages: Python, JavaScript, TypeScript, Java, C++
Web Development: React.js, Next.js, Angular, Tailwind CSS, FastAPI, HTML5, CSS3
ML/AI: PyTorch, TensorFlow, Hugging Face Transformers, Scikit-learn, Ollama, YOLO
Databases & Tools: PostgreSQL, MongoDB, Firebase, Git, AWS, Tableau

EXPERIENCE

Bhaskaracharya Institute for Space Applications and Geo-Informatics (BISAG-N)   Gandhinagar, India
Artificial Intelligence Developer Intern   Jan 2025 – Apr 2025

- Built **AI-powered web app** for natural language database queries using **Gemma-2 27B** LLM with **Ollama**.
- Developed full-stack system with **Next.js**, **FastAPI**, and **PostgreSQL**; integrated **Clerk** for role-based auth.
- Improved text-to-SQL accuracy through **prompt engineering** and dynamic **schema mapping**.

iBhavan   Ahmedabad, India
Flutter App Developer Intern   May 2023 – June 2023

- Developed **cross-platform mobile app** connecting clients with nurses for in-home healthcare services.
- Implemented appointment booking and real-time sync using **Firebase Authentication** and **Firestore**.
- Built responsive **UI components** in **Flutter** ensuring smooth cross-platform user experience.

PROJECTS

AI-based Text-to-SQL Generator
Full-stack web app enabling natural language queries to structured databases.

- Generated and **executed SQL queries** from natural language using **Gemma-2 27B** via **Ollama**, returning results in chat UI.
- Built with **Next.js** + **FastAPI** + **PostgreSQL**; added admin panel for **multi-database management** and user access control.

PaperChord – AI Chord Progression Generator
Text-to-MIDI generator that creates chord progressions from natural language descriptions.

- Fine-tuned **T5-small** on **synthetic dataset** (genre-based patterns) to generate Roman numeral progressions from mood prompts.
- Built **Next.js** + **FastAPI** app with in-browser **MIDI preview** via **Tone.js** and downloadable MIDI files.

NutriTrack – Diet Recommendation System
Personalized nutrition tracking and meal recommendations.

- Built full-stack app using **Next.js** and **FastAPI**; tracked **macronutrients** with AI-powered diet suggestions.
- Integrated **external recipe APIs** enabling flexible meal planning based on user dietary goals and preferences.