

Soham Chaudhari

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SUMMARY

Skilled in AI, Machine Learning, Natural Language Processing, and Generative AI. Proven track record of developing high-accuracy models and deploying scalable solutions. Strong foundation in Neural Networks and Deep Learning.

EDUCATION

B.E. Computer Engineering

Vivekanand Education Society's Institute of Technology | CGPA: 8.11

WORK EXPERIENCE

SR Counselling

December 2024 – October 2025

SDE Intern

- Implemented and deployed a high-accuracy ML recommendation system, achieving **95% accuracy**
- Led the development of an AI-based visa training system using **TTS, STT, and LLMs**
- Engineered scalable **REST APIs** (Node.js, Express.js), achieving **40%** faster response times

BCGX GenAI Job Simulation

May 2025

GenAI Developer (Virtual Experience)

- Created a financial chatbot for BCGX, reducing response time by **60% with 95% accuracy**
- Evaluated complex financial datasets from **10-K and 10-Q** documents of big tech firms using **Python, pandas, and NumPy**
- Built an **NLP** pipeline to automatically extract key **financial KPIs** from reports, enabling faster and more accurate financial forecasting.

PROJECTS

VISION AI - AI-based Image and Video Upscaling

October 2024

Technologies: ReactJS, Flask, PyTorch, OpenCV, ESRGAN, Computer Vision and Deep Learning

- Executed an **AI-based upscaling solution**, achieving more than 4x resolution enhancement for images and CCTV footage.
- Applied **GANs** using PyTorch, processing images with a 92% quality improvement rate. Performed error analysis using confusion matrices, **ROC curves**, and **hyperparameter tuning** (GridSearchCV, Optuna).

MOSAIC - AI-Powered Multimodal Video Analysis Platform

October 2025

Technologies: FastAPI, React, FastMCP, FFmpeg, Groq Whisper, CLIP, FAISS, ChromaDB, LangChain

- Engineered a multimodal video search using **CLIP/sentence-transformers** with **FAISS + ChromaDB** for semantic frame and transcript search
- Developed a **LangChain ReAct** agent with **MCP** tools for natural language video queries and timestamp-accurate clip generation and extraction.
- Architected FastMCP server with 7 video tools, background task queue, and RESTful API for concurrent analysis using asyncio

AI Bootstrap - Generative AI Project Scaffolding

July 2025- October 2025

Technologies: Python, Typer, Copier, Docker, LLMs, CLI Development, Jinja Templating, and LangChain

- Built a **platform that scaffolds AI/ML projects** in under 30 seconds, streamlining and bootstrapping workflows for developers.
- Integrated **Copier** and **Typer-based CLI** for 90% faster project initialization and error-free configurations

SKILLS & INTERESTS

Programming Languages: Python, JavaScript, Java, SQL

AI/ML: PyTorch, TensorFlow, LangChain, LangGraph, Transformers, Neural Networks, Computer Vision

Data Science: NumPy, Pandas, Scikit-learn, Statistical Analysis, Data Preprocessing, Exploratory Data Analysis

Web Development: MongoDB, ReactJS, NodeJS, ExpressJS, Flask, HTML5, CSS3

Databases: MongoDB, PostgreSQL, ChromaDB

DevOps & Collaboration: Docker, Git, GitHub, Postman

Interests: Generative AI, Deep Learning, Web Development, Agentic AI

ACHIEVEMENTS

Runner-up (2nd Place) at Medino X Advitiya'25 Hackathon, IIT Ropar (2025)

- Secured 2nd place among 200+ competitors with a healthcare AI solution

Top 10 finalist at Hack2Future 2024, IIIT Dharwad

- Achieved a Top 10 finalist position among 400+ competitors by developing a Vision AI solution