

# Suprovo Mallick

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[LinkedIn](#) — [GitHub](#)  
Portfolio: [dyno-suprovo-github-io.vercel.app](https://dyno-suprovo-github-io.vercel.app)

## Education

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### Suprovo Mallick - 23f2002885 - IITM BS

Jul 2023 – Jul 2027

Bachelor of Science (BS), Data Science and Applications  
[23f2002885@ds.study.iitm.ac.in](mailto:23f2002885@ds.study.iitm.ac.in)

### Kalyani Central Model School (KCMS)

2021 – 2023

Higher Secondary Certificate (HSC)

### Julien Day School (JDS)

2011 – 2021

Secondary School Certificate (SSC)

## Projects

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### AI Expense Advisor (India Edition) — [Streamlit App](#)

*Streamlit, Gemini API, LangChain, Hugging Face, RAG*

- Built a budgeting assistant that generates sarcastic financial advice based on user input
- Integrated sliders, charts, sentence transformers, and FAQ matcher using embeddings
- GitHub: [github.com/DYNOSuprovo/NLTK-EXP](https://github.com/DYNOSuprovo/NLTK-EXP)

### Aahar AI – Diet & Health Recommendation System — [Firebase App](#)

*FastAPI, Flutter, Gemini, ChromaDB, Hugging Face*

- AI-powered diet assistant that parses and embeds PDF-based diet plans
- Provides contextual responses using RetrievalQA and location/medical metadata
- Backend hosted via FastAPI, frontend built using Flutter

### Hindu Scripture Q&A App — [Streamlit App](#)

*FastAPI, Flutter, LangChain, Gemini, ChromaDB*

- Built a cross-platform RAG-based assistant that answers questions from Hindu scriptures
- Chunked scripture PDFs embedded into vector DB for context-aware responses
- LAN-exposed backend with memory for multi-turn queries

### ProblemSolverQP — [Streamlit App](#)

- Automated tool that parses academic question papers and generates model answers
- Utilizes regex, language modeling, and pattern recognition

### Churn Prediction Model

- Real-time user churn predictor using TensorFlow and scikit-learn
- Built an end-to-end ML pipeline with feature scaling and live input inference

### Car Price Prediction

- Trained regression models on car datasets using NumPy, Pandas, and scikit-learn
- Included EDA, hyperparameter tuning, and model evaluation

### Diabetes Prediction Model

- Classification pipeline using real medical data
- Used StandardScaler and logistic regression/random forest classifiers

## Technical Skills

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**Languages:** Python, Java, C, C++, Dart

**Libraries & Frameworks:** TensorFlow, scikit-learn, NumPy, Pandas, Matplotlib, LangChain, Streamlit, FastAPI, Hugging Face, Sentence Transformers, React, Firebase

**GenAI Tools:** Gemini API, ChromaDB, FAISS, Ollama

**Dev Tools & Platforms:** Git, Docker, Firebase, Google Colab, Jupyter, VS Code, Flutter, Figma, Fusion 360, SolidWorks

**Soft Skills:** Problem Solving, Technical Communication, Teamwork, Adaptability, Time Management, Mobile Editing, Creative Photography

## Experience

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### AI Chatbot & GenAI App Developer – Fed Society

2024 – Present

- Developed a personalized chatbot using Gemini API for student community engagement
- Created and deployed **Aahar AI**, an AI-powered diet assistant for the Fed Society's micro-startup initiative
- Designed a RAG-based pipeline using LangChain, Gemini API, and ChromaDB to deliver contextual diet recommendations
- Integrated medical history parsing, PDF chunking, and vector embedding for RetrievalQA
- Built a modular FastAPI backend and Flutter-based frontend, hosted on Firebase for cross-platform deployment

## Certifications

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- Supervised ML: Regression and Classification — DeepLearning.AI (May 2024)
- Career Essentials in Generative AI — Microsoft + LinkedIn (Jul 2024)
- Digital Skills: Artificial Intelligence — Accenture (Jul 2024)
- Google AI Essentials — Google (Jul 2024)
- Intro to Large Language Models — Google Cloud (Jul 2024)