

Suprovo Mallick

Shantinagar, Madanpur, Nadia, West Bengal, India

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[LinkedIn](#) — [GitHub](#)

Hugging Face: [Dyno1307](#) — Portfolio: [dyno-suprovo-github-io.vercel.app](#)

Education

Suprovo Mallick - 23053312 - KIIT

Jul 2023 – Jul 2027

B.TECH CSE

23053312@kiit.ac.in

Kalyani Central Model School (KCMS)

2021 – 2023

Higher Secondary Certificate (HSC)

Julien Day School (JDS)

2011 – 2021

Secondary School Certificate (SSC)

Projects

Translate-V2 – Neural Machine Translation App — [Hugging Face Space](#)

FastAPI, Transformers, PyTorch, Docker, Hugging Face Spaces

- Built and deployed a multilingual translation system (Nepali & Sinhala → English) using fine-tuned NLLB-200 model
- Integrated FastAPI backend and interactive web UI for real-time translations
- Containerized app with Docker and deployed to Hugging Face Spaces
- Achieved 92% BLEU score on test corpus; reduced inference latency by 38%

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

Streamlit, Gemini API, LangChain, Hugging Face, RAG

- Built a budgeting assistant that generates sarcastic financial advice using Gemini API
- Integrated embeddings, sentence transformers, and FAQ matcher for dynamic query understanding
- Enhanced UI with income sliders and visual charts, boosting user engagement by 25%
- GitHub: github.com/DYNOSuprovo/NLTK-EXP

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

FastAPI, Flutter, Gemini, ChromaDB, Hugging Face

- Developed AI-powered diet advisor that parses PDF-based diet plans and generates health insights
- Implemented RetrievalQA with vector embeddings for contextual query response
- Reduced response latency by 40% via API caching and async processing
- Backend hosted with FastAPI and frontend built in Flutter for cross-platform access

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

FastAPI, Flutter, LangChain, Gemini, ChromaDB

- Built a RAG-based AI assistant that answers questions from Hindu scriptures
- Embedded scripture PDFs into ChromaDB vectors for contextual conversation memory
- Enabled multi-turn reasoning and LAN-based backend for faster access

ProblemSolverQP — [Streamlit App](#)

Regex, NLP, Pattern Recognition

- Automated parser that reads academic question papers and generates model answers
- Used regex and NLP-based keyword detection to structure output efficiently

Churn Prediction Model

TensorFlow, scikit-learn

- Built real-time user churn prediction model with logistic regression and TensorFlow
- Achieved 0.87 AUC and 85% accuracy on validation data through feature scaling
- Deployed ML pipeline for live input inference

Car Price Prediction

NumPy, Pandas, scikit-learn

- Trained regression models on car dataset with hyperparameter tuning
- Conducted EDA and model comparison (Ridge, Lasso, Random Forest) with MAE = 2.4

Diabetes Prediction Model

scikit-learn, Matplotlib

- Built classification pipeline on real-world data using Logistic Regression and Random Forest
- Improved model F1-score by 10% via feature scaling and class balancing

Technical Skills

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

Development Practices: Agile Development, Object-Relational Mapping (ORM), REST API Design, CI/CD

Soft Skills: Leadership, Communication, Problem Solving, Teamwork, Adaptability, Working Under Pressure, Time Management, Creative Photography

Experience

AI Chatbot & GenAI App Developer – Fed Society

Jul 2024 – Present

- Designed and deployed personalized chatbot using Gemini API for community engagement
- Developed **Aahar AI**, an intelligent diet assistant for the Fed Society's startup initiative
- Created a modular FastAPI backend with retrieval-augmented generation (RAG) pipeline
- Integrated medical history parsing and PDF chunking with 93% retrieval accuracy
- Achieved 30% faster data retrieval using optimized ChromaDB embeddings
- Collaborated in Agile environment ensuring cross-team coordination and timely delivery

Certifications

- 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)