

# SOURISH CHATTERJEE

Kolkata, WB, India

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## Career Objective

I am a final-year **Computer Science Engineering** student specializing in **AI/ML**, with hands-on experience in **time-series forecasting** (**93.5%** holdout accuracy) and **anomaly detection** (**96.2%** recall), and published **transformer-LoRA adapters** (**100+** downloads). I am eager to apply *these skills* to **impactful projects** that drive innovation and foster *continuous learning*.

## Technical Skills

**Languages:** Python , Java , C, SQL

**Frameworks:** TensorFlow/Keras, PyTorch, Scikit-learn, Pandas, NumPy

**Tools & Platforms :** Google Cloud Platform, Git & GitHub, Google Colab, Jupyter Notebook, VS Code, Excel

**Data Analysis:** Data Mining, Preprocessing, Feature Engineering, Predictive Modeling, Visualization (Matplotlib)

## Experience

**Academy Of Skill Development, (GitHub —Certificate )**

**Jan 2024 – Feb 2024**

*Data Analyst Apprenticeship*

*Kolkata, WB*

- Analyzed 100K+ stock records to identify price trends and volatility patterns
- Delivered actionable insights that influenced data-driven investment decisions
- Collaborated with a 4-member team to streamline analysis workflows and cut processing time by 20%

## Projects

**DeepTalks** | *Hugging Face, PEFT, Transformers*

**HuggingFace**

- Developed and fine-tuned a **LoRA adapter** for **Microsoft Phi-2**, injecting short-term memory with only **0.2%** of base parameters.
- Achieved a **validation loss of 1.10** on a **35 K-token corpus** and attracted **110+ downloads** on Hugging Face.

**PricePulse** | *TensorFlow/Keras , LSTM*

**GitHub**

- Engineered a **3-layer LSTM** on **5 years of Nifty 50** data, delivering **93.5%** forecasting accuracy on a 6,500 - sample holdout set, outperforming ridge regression by **17.2%** .
- Deployed as a **Hugging Face Space**, securing **80+ user interactions** in the first month.

**NavAI-Guard** | *Scikit-learn · Autoencoder · TensorFlow/Keras*

**GitHub**

- Trained an unsupervised **autoencoder** on **1.4 M AIS records** (speed, heading, position) with noise reduction, achieving **96.2%** recall, **4.8%** false-positive rate, and **28%** faster convergence.
- Deployed on **Hugging Face Space**, able to process vessel updates/min at **~ 150 ms latency** and reducing manual oversight by **~ 30%**.

**Decodex** | *PyTorch, Transformer*

**GitHub**

- Built GPT-style decoder from scratch with **multi-head attention** & **positional embeddings**.
- Optimized training with **AdamW** and **layer normalization** for **20% faster convergence** on a **classic-literature corpus**.

## Achievement

- Developed an adapter model for the Phi-2 conversational AI framework to enable short-term memory, achieving **110+ downloads** on Hugging Face.
- **Achieved top 10** in SAP Hackfest 2025 (college level), qualified for the state round by pitching an XAI-powered fraud detection portal
- Conducted Python & ML workshops, teaching fundamentals to **20+ first-year students** with strong feedback scores

## Certifications

Google Cloud Platform Fundamentals,    Generative AI Specialization by Google,    MOOCs - ML & CS

## Education

**Meghnad Saha Institute of Technology**

**2022 – 2026**

*B.Tech in Computer Science and Engineering (AIML)*

*Kolkata, WB*

**Relevant Courseworks :** Data Structures, Algorithms Analysis, Database Management, Machine Learning, Artificial Intelligence, Deep Learning, OOPs, Operating Systems, Soft Computing