

Debaghya Saha

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EXPERIENCE

AI Intern

July 2025 – Present

Ethical Den (Hivyr.ai) — Onsite

- Working on real-time AI/ML projects focused on LLM integration, voice interfaces, and TTS/STT pipelines.
- Collaborating in a fast-paced R&D environment with contributions to both backend and research components.

Android Developer (Freelance)

June 2024 – Present

Self-employed — Remote

- Building a cross-platform app for a collectibles business (500+ monthly users) to boost mobile UX and retention.
- Implemented 6+ custom Flutter widgets using Provider for state management across search/cart/profile.
- Reduced load time by **50%** via lazy-loading and caching 500+ product assets.
- Improved delivery speed by **40%** using reusable UI components and layout optimization.

PROJECTS

Andhra Police SQL Generator API

[GitHub](#)

- LLM-based FastAPI app to convert natural language into CCTNS SQL queries for Andhra Police.
- Achieved **92% SQL accuracy** using Ollama and schema-aware prompt engineering.
- Used ChromaDB + Sentence Transformers for **65% better retrieval**.
- Reduced query time **80%** via schema inspection and caching.

Reinforcement Learning on Pokemon Red (Custom Gym)

[GitHub](#)

- Created custom OpenAI Gym environment on Pokémon Red ROM.
- Trained A2C/PPO agents for 500k+ steps; achieved **82% win rate**.
- Used GAE and reward shaping to improve sample efficiency by **35%**.
- Reverse-engineered game logic via disassembly + memory map.

SKILLS

- **Languages:** Python, C++, TypeScript, SQL, Bash, Dart
- **ML/AI:** PyTorch, Tensorflow, Scikit-learn, LangChain, Stable-Baselines3, MLflow, ChromaDB, Milvus, llama.cpp, Langflow
- **CrossPlatform:** Flutter
- **DevOps:** Docker, Kubernetes (Minikube), Linux
- **Backend:** FastAPI, Node.js, MongoDB
- **Cloud:** GCP, AWS

EDUCATION

Meghnad Saha Institute of Technology

2022 – 2026

B.Tech in Computer Science and Business Systems

West Bengal, India

Sudhir Memorial Institute

2020 – 2022

CBSE - Senior Secondary

West Bengal, India

Calcutta Airport English High School

2007 – 2020

WBBSE - Secondary Education

West Bengal, India

ACHIEVEMENTS

Smart India Hackathon 2024 Winner – MoE Problem Statement #1742 (Top 315 / 88,221 teams)

Smart India Hackathon 2023 (Internal College Level) – Winner

Andhra Police Hackathon (AI4Andhra) 2025 – Finalist