

ANKIT DEY

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EDUCATION

Narula Institute of Technology (makaut affiliated)

2024-2028

Bachelor of Technology (Computer Science)

Kolkata

- SGPA: 8.45 / 10 | Year: 3rd
- Relevant Coursework: Data Structures & Algorithms, NLP & LLM, Neural Networks, Distributed Systems
- Languages: English (C1), Bengali (C1), Hindi (C1), German (A2)

EXPERIENCE

AI Engineer

2025 – Current

Independent OSS & Freelance

- Developed machine learning inference pipelines with Python and FastAPI, processing 50k+ daily requests with 40% lower latency and 60% higher throughput, improving semantic search relevance by 25% via KMeans clustering and vector database indexing.
- Built RAG systems with LangChain and ChromaDB for automated LLM support, reducing hallucination rates by 15% through prompt engineering and retrieval tuning, while maintaining 90%+ accuracy across multi-agent workflows.

Discord Developer

2023 – 2025

Sync Music (Verified Discord Music Bot)

- Developed event-driven Discord bot architecture serving 200k+ users across 2k+ servers, achieving 99.9% uptime and reducing memory usage by 30% through optimized caching and resource management.
- Implemented a scalable monetization strategy via premium feature gates and vote-locked access, driving consistent monthly recurring revenue (MRR) across 200k+ users.

PROJECTS

Swiggy MCP Build | TypeScript, Express.js, OAuth 2.1 PKCE, State Token CSRF, Swiggy MCP | [LinkedIn Post](#)

- Selected for the Swiggy Builders Club after building a Discord integration using OAuth 2.1 PKCE authentication, integrating Instamart MCP, for real-time order management serving 100+ users.
- Implemented OAuth 2.1 PKCE with SHA256 challenge and CSRF protection, managing per-user token lifecycle and authorization via Express.js callback server.
- Developed Discord slash commands for cart management and order tracking, enabling users to execute Instamart MCP tools and access Swiggy's real-time APIs directly within Discord.

TubeInsight | Python, LangChain, ChromaDB, KMeans Clustering, Embeddings, RAG, FastAPI | [Github](#)

- Built multi-agent LangGraph pipeline automating YouTube video's comment analysis with sentence-transformer embeddings, reducing manual research time by 50% and increasing insight discovery speed by 30%.
- Developed RAG-powered chat interface with ChromaDB vector database and FastAPI, enabling natural language queries over audience sentiment and topic clusters with 90%+ retrieval accuracy.

Sync Music | TypeScript, Discord.js v14, Node.js, MongoDB, Lavalink, shokaku.js | [LinkedIn Post](#)

- Developed Discord music bot with Discord.js v14 and Lavalink, serving 200k+ users across 2k+ servers with low-latency audio streaming and MongoDB-backed persistent queue management.
- Integrated Stripe and Polar.sh payment gateways for premium features, monetizing 200k+ user base via subscription and vote-locked access.

TECHNICAL SKILLS

Languages: Python, TypeScript, JavaScript, Rust, Solidity, Rust (Basics)

AI/ML Frameworks: PyTorch, TensorFlow, Hugging Face Transformers, LangChain, RAG, RL, MCP

Frameworks & Tools: FastAPI, React, Next.js, Node.js, Discord.js, Docker, Git

Databases & Vector Stores: ChromaDB, Pinecone, MongoDB, Redis, Supabase

Cloud & DevOps: AWS (S3, EC2), Vercel, GitHub, Postman