

Arnab Mondal

Portfolio: <https://www.codewarnab.in/>

Linkedin: <https://www.linkedin.com/in/codewarnab/>

Github: <https://github.com/codewarnab>

Email: dev@codewarnab.in

Mobile: +91-6291912672

EDUCATION

- **RCC Institute of Information Technology (RCCIIT)** Kolkata, India
Bachelor in Technology (Computer Science and Engineering); July 2023 - Present

EXPERIENCE

- **Codemate.ai** Remote
Full-Stack Developer Intern November 2024 - May 2025
 - Built and shipped dynamic landing pages for AI products using **Next.js, React, and Framer Motion**, including an animated terminal demo that boosted product signups.
 - Revamped the **Codemate Web App** chat interface: added file uploads, voice input, rich markdown, web search (RAG), and BYOK support — all with smooth state handling in Next.js.
 - Developed the full-stack “Playground” (Build Section) enabling AI-powered code generation for frameworks like **React, Next.js**, and TypeScript, with live preview + one-click deployment.
 - Implemented complex subscription workflows: **20+ dynamic plans**, BYOK licensing, Stripe checkout, and integrated role-based **team management** into the app.
 - Balanced front-end polish with backend logic (**FastAPI, Supabase**) to deliver seamless, production-ready features. **Read More**
- **Student Welfare Committee (SWC) Tech Team** RCCIIT, Kolkata, India
Technical Team Member October 2024 - May 2025
 - Led backend development for large-scale cultural + tech events (**Game of Thrones, Regalia**), platforms handling **1000+ registrations** across multiple colleges.
 - Architected **registration + approval workflows** (solo/team) using Supabase RPCs, automated email pipelines (Resend), and an approval table handling **50k+ rows** with React Virtualized.
 - Developed a secure **Event Admin Panel** (CRUD, toggle registrations, role-based approvals), improving operational control for organizers.
 - Built a **QR code scanner app** (Expo + Clerk Auth + Supabase) for Regalia, enabling real-time check-ins, attendance logs, and database sync.
 - Optimized systems for **scalability + reliability** under peak event traffic, ensuring seamless experience for both students and admins.
 - **Tech Stack:** Next.js, Supabase, Prisma, Zustand, Expo, Clerk, Resend, QR Code **Read More.**

SKILLS SUMMARY

- **Languages:** Python, JavaScript, TypeScript, C, C++, Java
- **Backend Frameworks:** FastAPI, Express.js, Node.js, Convex.dev
- **Frontend Frameworks:** Next.js, React.js, React Native, Expo, Zustand
- **Databases:** PostgreSQL, MongoDB, Supabase, MySQL, SQLite
- **Cloud & DevOps:** Vercel, Netlify, Firebase, Docker, GitHub/GitLab CI/CD
- **Developer Tools:** Git, VS Code, Postman, Replit

PROJECTS

- **IntelliSupply** Google Gemini, Tavily, Mem0, Supabase, Redis, CopilotKit, Next.js
Lead Developer — AI-powered Supply Chain Co-pilot
 - Architected a **multi-agent backend pipeline** using Google Gemini, Tavily, Mem0, Redis, and Supabase for scenario generation, persistence, and distributed task coordination.
 - Enabled users to build & edit a **digital twin supply chain model** via natural-language Copilot (40+ custom CopilotKit actions).
 - Implemented proactive **disruption simulations** and one-click strategy pipelines that converted analyses directly into Kanban tasks for execution.
 - **Links:** **Demo, Blog.** (2025)
- **Connectly** Convex.dev, Supabase, Next.js, Livekit.io, Pusher.js
Full-Stack Developer — Real-time Communication Platform
 - Architected the core **real-time messaging backend** with Convex, implementing secure storage, efficient retrieval, and support for individual + group chats.

- Integrated **Clerk authentication** with Convex and custom webhooks to sync user sessions, enabling secure login and automatic database updates.
- Developed backend logic for **friend request workflows** (send, accept, reject), ensuring atomic database updates and seamless user experience.
- Implemented **file sharing pipeline** using Supabase storage, handling secure uploads, access control, and message-linked file distribution.
- Added **real-time typing indicators** via Pusher.js + Next.js route handlers, broadcasting low-latency events across clients.
- Integrated **LiveKit APIs** for video/audio calls, enabling peer-to-peer media streaming with call controls (mute, video toggle, end call).
- **Links: Blog, GitHub, Deployed Link.** (2024)

• PcsGlobal360

React.js, Node.js, MongoDB, Express.js

Backend + Full-Stack Developer — YouTube Repository Platform

- Designed and implemented **JWT-based authentication + role management** (user, employee, admin) with secure API authorization and email verification workflows.
- Developed an **admin dashboard backend** for course, category, and event management, enforcing role-based access control and validation.
- Engineered a **background processing system** using Node.js worker threads to fetch and sync YouTube playlists without blocking the main thread.
- Implemented **cron jobs** to periodically refresh playlists (24h sync) and update MongoDB, reducing API calls while ensuring consistency.
- Built a **playlist enlistment + instructor onboarding workflow** with admin review/approval, allowing community-driven content submission.
- Optimized backend queries and validation rules for playlist, category, and event management, ensuring data integrity at scale.
- **Links: Blog, Deployed Link.** (2024)

HONORS / ACHIEVEMENTS

- **100 Agents Hackathon — Winner:** Led a team of 4 at the premier 100 Agents Hackathon, focused on AI agents and multi-agent systems. Secured **1st place** for building an AI-powered supply chain resilience system. **Read More.**
- **HackFest 2025 — 1st Runner-up:** Built back-end services and mobile app features that helped secure **1st runner-up** among 500+ teams at **IIT Dhanbad's HackFest 2025**. Project recognized for innovation and impact. **More.**
- **Dev Nexus 1.0 — 2nd Runner-up:** Led a team of 4 to build a project at the Dev Nexus 1.0 hackathon, placing **3rd overall** among 286 teams and 1,200 applicants. **Details.**
- **Smart Bengal Hackathon 2.0 — Finalist:** Reached the top 30 among 50+ teams at RCCIIT, Kolkata, by developing an innovative solution under time constraints. **Certificate.**
- **GSSoC Project Admin (2024):** Maintained and scaled an open-source project under **GSSoC**, leading a community of contributors. The project Paws Frontend reached **70+ GitHub stars, 100+ forks, and 30+ merged PRs.**

CERTIFICATIONS

- **100 Days of Code: The Complete Python Pro Bootcamp (Udemy):** Successfully completed on Oct 1, 2023 under Dr. Angela Yu (Developer and Lead Instructor). The certificate validates completion of all **58 hours** of content. **View Certificate.**