# JOYDIP CHAKRABORTY

Kolkata, West Bengal

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## Education

**Heritage Institute Of Technology**  06/2023 – 06/2026
*B.Tech in Computer Science – CGPA: 8.0/10*  *Kolkata, India*

**Gaighata Government Polytechnic**  2019 – 2022
*Diploma in Electrical Engineering – Grade Point: 8.4/10*  *West Bengal, India*

### Relevant Coursework

- Web Development
- Game Development
- Data Structures & Algorithms
- Operating Systems
- Network Security
- Database Management (DBMS)
- Artificial Intelligence
- OOP Concepts

## Work Experience

**Euphorea GenX (On-Site)**  05/2025 – 07/2025
*Full-Stack Machine Learning Intern*
- Built stock prediction app with Next.js, React 19, TypeScript; integrated real-time data and charts for 20-day forecasting using FastAPI and TensorFlow Lite.
- Deployed on AWS EC2 with Docker and CI/CD via GitHub Actions, improving update efficiency.
- Live site

## Projects

**Aiverse**  | MERN, Next.js, SSE, AWS  01/2025
- Implemented real-time AI chat with SSE streaming and dynamic history summarization for token efficiency across LLMs (Gemini, Qwen, Grok).
- Enabled cross-bot collaboration, isolated user data in MongoDB, and deployed on AWS EC2; **overcame Vercel timeout limitations for long-message streaming by migrating to VM and resolving NGINX configuration issues, ensuring reliable performance.**
- Live site

**E-commerce Platform**  | Next.js 14, React 18, TypeScript, Tailwind CSS  03/2025
- Developed full-stack production-ready platform with product catalog, multi-step checkout, admin dashboard for inventory/sales analytics using Recharts, Razorpay for secure payments, and automated emails for order lifecycle (placement, confirmation, dispatch).
- Integrated user engagement features (cart recovery, Meta Pixel), bulk operations, and responsive design; managed backend with Express and PM2 for process handling to ensure high availability.
- Deployed frontend on VM with custom CI/CD for Next.js builds; hosted Postgres database on Cloudflare with nightly backups and CDN for optimized performance and global access.
- Live demo

**DirectX12 Renderer**  | C++, DirectX 12, HLSL  06/2024
- Created 3D renderer with PBR materials, deferred shading, and dynamic buffers; reduced draw calls by 30% and boosted performance by 20%.
- Implemented lighting, normal mapping, and camera controls with optimized resource management.
- Binaries

## Technical Skills

**Languages:** C, C++, Python, Java, JavaScript, SQL, HLSL
**Frameworks & Libraries:** React, Next.js, Node.js, Express (RESTful APIs), Tailwind CSS, TensorFlow Lite, FastAPI, Razorpay
**Tools & Platforms:** Linux, Git, Docker, AWS EC2, MongoDB, PostgreSQL, Unreal Engine 5, Cloudflare (CDN & DB), PM2, NGINX
**Development Tools:** Visual Studio, VS Code, JetBrains Rider, Blender, Postman
**Graphics & Low-Level:** DirectX 12, OpenGL, Multithreading, Memory Management