

# Arunabha Mukhopadhyay

Third-Year CSE Student |

Aspiring Software Developer and Blockchain Enthusiasts

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## Education:

Symbiosis Institute of Technology, Pune

Bachelor of Technology in Computer Science Engineering

2023 - 2026

CGPA: 7.32

Delhi Public School, Roorkee

Class -12th

2023

78%

Delhi Public School, Roorkee

Class -10th

2021

93.3%

## PROJECTS:

### Sparkathon By Walmart: [↗](#)

**Tech Stack:** React.js, Node.js, Express.js, MongoDB, Gemini API, REST API, JWT

- Collaborated with a team of 5 to design and develop a **retail platform prototype** during Walmart Sparkathon.
- Structured **10+ MongoDB collections** for inventory, users, and transactions, improving query handling efficiency.
- Integrated Gemini API to enable **AI-powered product recommendations** and personalized content.
- Implemented **role-based JWT authentication** ensuring secure access to platform features.
- Built **React.js dashboards** for deal discovery, presenting live inventory data in real time during demos.

### Bajaj-Hackrx-Hackathon: [↗](#)

**Tech Stack:** FastAPI, LangChain, Google Gemini 2.5 Pro, Pinecone, Python

- Created an **AI-driven backend system** to handle **10+ multi-format documents** (PDF, DOCX, emails).
- Developed **semantic search pipeline** with Google Embeddings + Pinecone, establishing a strong baseline for further tuning.
- Enhanced async/await workflows, resulting in **40% reduced query latency** on sample repositories.
- Exposed functionality via **RESTful APIs** with integrated logging and monitoring during hackathon testing.

### Web-Based-Wallet: [↗](#)

**Tech Stack:** React.js, Node.js, Express.js, Tailwind CSS, Solana Web3.js, Ethers.js, BIP39

- Engineered a **multi-chain wallet system** supporting Solana & Ethereum wallet generation via BIP39 mnemonics.
- Built **REST APIs** for blockchain lookups with **sub-500ms response time** on test cases.
- Designed a modular React UI with **dark mode & wallet interaction features**, improving usability.
- Added security-focused features including **private key masking & validation**, strengthening reliability.
- Fine-tuned API calls and state management, achieving a **35% faster response time** during internal testing.
- Delivered utility functions for **import/export and error handling**, ensuring smooth developer usage.

## TECHNICAL SKILLS:

- **Languages:** C/C++, JavaScript, SQL
- **Frameworks:** React.js, Node.js, Express.js, HTML, CSS, Web3.js
- **Databases:** MongoDB (NoSQL), SQL
- **Tools:** Git, GitHub, VS Code, Postman, GitHub Actions
- **APIs:** REST API Development, JWT Authentication, Third-Party API Integration
- **Core CS:** OOP, Testing, Debugging, DBMS

**Soft Skills:** Resilient, curious, and flexible, strategic thinking persistence, growth mindset, and full ownership

## ACHIEVEMENTS & PARTICIPATION:

- Hackathons: Walmart Sparkathon (Full-stack retail platform), Bajaj HackRx (AI document Q&A), Reimagine Hackathon (advanced to Round 2), SIH Hackathon [↗](#) (Blockchain based carbon token and MRV System.)
- Recognition: Built & deployed Vaishnav-Memorial on Vercel; Demonstrated expertise in scalable web apps & DB management; Strong experience in API integration & modern web tech.