

AVOY SASMAL

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Education

Techno International New Town, Kolkata
B.Tech. in Information Technology, SGPA: 7.3/10

Sep. 2022 – May 2026
Kolkata, WB

Technical Skills

Languages: C, C++, Python, Java, HTML,CSS, JavaScript

Tools: VS Code, Git, Git Bash, GitHub, Linux

Frameworks & Technologies: React.js, Node.js, Express.js, REST APIs, JWT, MongoDB, MySQL, Redis, Docker, Nginx, RabbitMQ

Soft Skills: Communication, Teamwork, Problem Solving, Leadership, Adaptability

Projects

UniPrep Copilot – AI-Powered Full-Stack Academic Platform [Live](#) | [GitHub](#)

- Collaborated on building an AI-driven academic assistant focused on syllabus-aware content generation, exam preparation tools, and personalized study workflows.
- Implemented secure backend APIs and frontend integrations to support AI orchestration, contextual data handling, and JWT-protected user workflows.
- **Tech:** React.js, Node.js, Express.js, MongoDB, OpenRouter AI, JWT, Tailwind CSS.

Code Room - Online Code Editor [Live](#) | [GitHub](#)

- Built a real-time collaborative code editor enabling multiple users to edit code simultaneously using WebSockets (Socket.io).
- Integrated multi-language code execution (JavaScript, Python, Java, C++, etc.) using the Piston execution engine with stdin support.
- Designed a clean, modular MVC-style backend architecture with a professional landing page and intuitive editor UI.
- **Tech:** Node.js, Express.js, WebSocket, React.js, Tailwind CSS

Unified Async Workflow & Notification Platform – Distributed Backend System [GitHub](#)

- Collaborated on building a microservices-based backend platform featuring JWT-secured API gateway, Redis-backed rate limiting, and event-driven communication using RabbitMQ.
- Implemented asynchronous task processing, distributed caching, and containerized deployment using Docker with Nginx reverse proxy and service monitoring.
- **Tech:** Node.js, Express.js, MongoDB, Redis, RabbitMQ, Docker, Nginx, JWT.

Movie App – Frontend Web Application [Live](#) | [GitHub](#)

- Developed a responsive movie browsing application that fetches and displays real-time data from external APIs.
- Optimized UI rendering and client-side state management to ensure smooth navigation and performance.
- **Tech:** React.js, JavaScript, REST APIs, HTML, CSS.

Other Projects: [Link to other projects](#)

Extracurricular

- **Finalist in Smart India Hackathon (SIH) 2023**, demonstrating strong collaboration, problem-solving, and innovation in a team-based project environment.
- Selected as a **Contributor for Hacktoberfest 2025**, among applicants across India.