Somnath Chattaraj

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Skills

- **Data Structures and Algorithms (DSA):**
  - Advanced problem-solving skills, with experience in competitive programming on platforms like Codeforces and LeetCode.
- **Programming Skills:**
  - Proficient in C++, with extensive experience in performance-critical systems, object-oriented programming (OOP), and template metaprogramming.
  - Familiar with Solidity and Rust, with practical knowledge in smart contract development for blockchain applications.
- **Web Development:**
  - **Web 2.0:** Strong experience with HTML, CSS, TypeScript, React, Node.js, Express, Prisma, Redis, and Docker.
    - Expertise in developing responsive web applications, state management, API development, and microservices architecture.
  - **Web 3.0 (Learning)**: Deep understanding of blockchain fundamentals, smart contracts, and decentralized applications.
    - Hands-on experience with Solidity (Ethereum) and Solana, building decentralized applications (dApps) and deploying on testnets.

Projects

Campus Chatter (Link)

- **Designed and developed a secure, community-driven platform** featuring **real-time chat, video calling** powered by the Daily API, and fuzzy searching with **Fuse.js,** fostering seamless communication and collaboration.Leveraged **Redis** for blazing-fast data fetching and search.
- Implemented robust authentication and security features, including **JWT**, **Google/GitHub login**, email verification, **DDoS protection, reCAPTCHA,** and **rate limiting,** ensuring a trusted and scalable environment.

Automation Workflow Platform Developer (Link)

- Developed a scalable Zapier clone with **webhook handling,** leveraging **Kafka** queues for seamless event processing and **Prisma** for efficient database management.
- Engineered a high-performance automation platform integrating **real-time workflows,** event-driven architecture, and smooth operations using modern tools like **Kafka**, **Prisma**, and **Express**.

Real-Time Chess Game (Link)

- Developed a multiplayer chess game allowing two users to play in real-time using WebSocket for seamless communication. Built with React, Node.js, and WebSocket for real-time updates and interactive gameplay.

Experience

- **Jadavpur Mathematical Society (JMS)** *Aug 2024-Present*
  - Tech Team Member

- **IEEE Jadavpur University Official** *May 2024-Present*
  - Tech Team Member

Education

- **Jadavpur University, Kolkata** *2023-2027*
  - Bachelor of Engineering, Information Technology
  - GPA: 8.6

- **Hem Sheela Model School, Durgapur, West Bengal** *2023*
  - AISSCE (92.8%)

- **Hem Sheela Model School, Durgapur, West Bengal** *2021*
  - AISCE (95%)

Additional Information

- **Availability**: Full-time internship from May–August 2025.
- **Communication**: Fluent in English with strong skills for technical discussions and collaboration.
- **Competitive programming achievements:**
  - Codeforces: Pupil rank (1254 rating)
  - CodeChef: 3-star rated participant
  - LeetCode: Solved 250+ problems
- **Technical Skills**: Proficient in software project development, coding, and problem-solving.
- **Professional Development**: Experienced in skills-based training, networking, and continuous learning.
- **Web3 Enthusiast**: Actively exploring blockchain, smart contracts, and decentralized applications.
- **Soft Skills**: Strong teamwork and adaptability in diverse and dynamic environments.