

Jatin Singla

Junior Competitive Programmer

SUMMARY

- Engineering background from IIT Patna with a strong CGPA of 8.97 in Computer Science and Engineering.
- Hands-on experience in modernizing high-stakes trading platforms using React functional components and Material UI, enhancing performance and scalability.
- Proficient in C++, Python, JavaScript, Node.js, and web technologies with expertise in algorithmic trading strategies and risk management, achieving 2500% returns in simulated markets.
- Demonstrated competitive programming excellence with top global ranks in ICPC and Hacker Cup, and advanced problem formulation for AI code generation.

TECHNICAL SKILLS

Main Technical Skills	C/C++/C#, JavaScript (2 yr.), Python, Node.js (1 yr.)
Programming Languages	JavaScript (2 yr.), Python
C++ Libraries and Tools	C/C++/C#
JavaScript Frameworks	Express, Node.js (1 yr.), React
Data Analysis and Visualization Technologies	Business Analysis (1 yr.), k-NN (1 yr.)
Databases & Management Systems / ORM	MySQL
UI Frameworks, Libraries, and Browsers	CSS (1 yr.), HTML (1 yr.), Material UI
Version Control	Git, Github Actions
Mail / Network Protocols / Data transfer	JWT (1 yr.)
SDK / API and Integrations	JWT (1 yr.)
Operating Systems	Linux, Windows
Project Management & Administration	Technical Documentation (1 yr.)
Other Technical Skills	: Arduino

WORK EXPERIENCE

Technology Developer Intern - D.E. Shaw & Co. (TMTool Trading Platform Modernization)

Duration: May 2025 – Jul 2025

Summary:

- Re-architected and modernized D.E. Shaw & Co's critical proprietary trading platform, TMTool, which is essential for trade control, commodity transactions, and automated trading
- The project aimed to improve the platform's performance, maintainability, and user experience by updating the technology stack and optimizing workflows

Responsibilities:

- Led the complete re-architecture and modernization of the TMTool platform.
- Migrated React codebase from class-based to functional components.
- Redesigned and optimized core trading workflows to enhance speed and efficiency.
- Spearheaded UI migration to the latest D.E. Shaw UI Library based on Material UI.

Technologies: React (class-based and functional components), D.E. Shaw UI Library, Material UI

Competitive Programming Engineer - Mercor (Programming Contest Problem Development)

Duration: Nov 2024 – Dec 2024

Summary:

- Developed original programming contest problems designed to evaluate and train Large Language Models in competition-level code generation
- The problems emphasized originality, difficulty, and adherence to contest format specifications

Responsibilities:

- Formulated and developed original programming contest problems.
- Ensured problems met competition-level difficulty and format standards.
- Contributed to training and evaluation of Large Language Models.

Team Member - Zelta Automations (Inter-IIT 13.0 Project) (Algorithmic Trading for BTC-USDT and ETH-USDT Markets)

Summary:

- Developed and optimized algorithmic trading strategies for cryptocurrency markets BTC-USDT and ETH-USDT using Python, technical indicators, and statistical analysis including the Hawkes process
- The project focused on multi-timeframe analysis and advanced risk management to maximize trading returns

Responsibilities:

- Collaborated in a team of 8 to develop algorithmic trading strategies.



- Designed entry and exit frameworks using multi-timeframe analysis.
- Integrated advanced risk management techniques such as trailing stop-losses.

Technologies: Python, Technical Indicators, Statistical Analysis, Hawkes Process

Developer (Faculty Recruitment Website)

Summary:

- Developed a clone website for institutions to accept faculty recruitment applications with features supporting multi-device login and session persistence
- The website includes functionalities such as saving form data, forgot password, change password, and logout using JSON Web Token cookies

Responsibilities:

- Developed a multi-device compatible faculty recruitment application website.
- Implemented session persistence allowing users to save form data.
- Implemented authentication features including Forgot Password, Change Password, and Logout using JWT cookies.

Technologies: Node.js, JavaScript, HTML, CSS, JSON Web Token

EDUCATION

- **Indian Institute of Technology, Patna**

Bachelor of Technology in Computer Science and Engineering, CGPA: 8.97

Nov. 2022 – May 2026 (Expected)

