Rajat Goel

LEAD SOFTWARE ENGINEER DUBAI, UAE | UTC +04:00

✉ grajat90@gmail.com ◆ rajatgoel.xyz (portfolio) in Rajat Goel

Full-stack engineer for **5.5y** specifically working in **DeFi, TradFi,** & high-performance **trading infra**. ex-**Opyn** - built **smart contract integrations, indexers, liquidation/risk hooks**, & full trading UIs. Founded **Optionlogy**- ultra-low-latency **options analytics & auto-trading SaaS**, scaled to thousands. I'm exceptionally good at building for speed, precision & elegant UX.

KEY ACHIEVEMENTS

- Launched **Opyn markets testnet** over **arbitrum sepolia**, building custom **indexers, smart contract interactions, SPAN margin calculations** and APIs that powered **>5000** testnet traders.
- Built high-throughput blockchain **indexer processing 45K+ daily events** with millisecond API latency.
- Created options analytics tools **(Greeks, payoff, BSM predictions)** for **60K+ traders** on Optionlogy.
- Engineered low-latency **distributed algo trading engine** handling **400+ strategies per node**.
- Cut strategy execution **latency by 200% via optimized Kafka**, Redis, and in-memory pipelines.
- Scaled Optionlogy to **60K users** with high availability and real-time PnL/backtesting features.
- Delivered rapid, modular API releases in **<1 week cycles without downtime**.

TECHNICAL SKILLS

- **Programming Languages:** TypeScript(5.5y), JavaScript(6y), Python(6y), Go(3y), Java(1y), Solidity (Beginner, 1y)
- **Fullstack Frameworks & Libraries:** Next.js(5y), React(6y), Node.js(5y), echo(3y), gin(3y), FastAPI(4y), Prisma(2y), tRPC(2y), TradingView Advanced Charts(3.5y), react-charts(3.5y), shadcn(2y), Tailwind CSS(3y), LangChain(1y), OpenAI SDK(1y), Apache Flink(3y), Kafka(3y)
- **Web3 & Blockchain:** Wagmi(1y), viem(1y), ethers.js(1y), RainbowKit(1y), WalletConnect(1y), OpenZeppelin(6mo), Foundry(1y), Hardhat(1y), Ponder(1y)
- **Data & Storage:** PostgreSQL(5y), Supabase(3y), MongoDB(5y), DynamoDB(4y), Redis(5y), Elasticsearch(1y), Amazon S3(5y)
- **DevOps & Infrastructure:** AWS(5y), GCP(5y), Kubernetes(2y), Docker(4y), TurboRepo(1y), pm2(5y)

EXPERIENCE

Lead Full-Stack Engineer • **Opyn Markets** (acq by **Coinbase**) 📅 Nov. 2024 – July 2025

Opyn pioneered the Power Perp (Squeeth) — a capital-efficient, on-chain perpetual options primitive without order books.

- Created **end-to-end trading flows**, integrating **arbitrum smart contracts** via **indexers, alchemy SDKs, and direct RPC calls**.
- Implemented contract **read, write & simulate logic** for trade execution, **transaction builder, position management, Uniswap calls, collateral and LP adjustments** and more with **viem/wagmi in NextJS** to enable seamless trading experiences for **>5000 users**.
- Designed **real-time on-chain data indexer** for **45K+ trade events**, pricing, liquidity, and risk parameters, in **ponder**, ensuring **<200ms UI response** for active DeFi traders.
- Engineered advanced off-chain calculations for **SPAN margin, liquidations, execution price, price impact, portfolio health, expected payoff, expected liquidations** & more for a complete view of your existing portfolio as well as any new potential trade
- Collaborated with smart contract engineers to design user interaction patterns **minimizing gas costs and failed transactions** through batched **multicalls**, transaction **simulations**, and advanced **validations based on liquidity and risk**.
- Developed dashboards to visualize **payoff & risk metrics** for on-chain positions, leveraging **advanced options knowledge**.
- Worked closely with protocol researchers to translate **DeFi economic mechanisms** into clear, actionable user experiences.

CTO & Co-Founder • ◯ Optionlogy
Nov. 2021 – Dec. 2024

Optionlogy was a Fintech product providing automated trading and market analysis in the futures & options segment to **60K+ traders**. As the CTO, I:
- Built a **multi-leg options analytics** suite with payoff curves, **greeks, implied volatility, deltas**, breakevens, and probability of profit, powered by a **custom Black–Scholes variant** combining implied volatilities for more realistic pricing.
- Designed **real-time data pipelines** for market feeds, catering to **>1500 ticks per second** and analytics using **WebSockets, Kafka, TimescaleDB, Redis, Python, Go, and Celery**, delivering **millisecond-level updates** to traders.
- Engineered a **distributed algo trading system** in Go using a **master-slave architecture**, managing load, job scheduling, and availability of strategy processor nodes, enabling parallel execution of **400+ long running strategies** per node across thousands of trading strategies.
- Developed a clean, intuitive & bug free user interface with streaming analytics using **NextJS, ReactJS, WS, Figma**
- Worked with **databases & caching layers such as redis and elasticsearch** for fast & scalable trading & analysis
- Managed a **tech team of 5 people** providing them with **architectural design**, technical guidance and PR reviews

Chief Technology Officer • ⬛ GreeX
Feb. 2024 – July. 2024

Led by ex-Binance folks, GreeX was an early stage Crypto CEX, aimed at making crypto options easier and accessible
- Built **core exchange infra**: ultra-low-latency C++ **matching engine** with sub **1ms order matching** (Liquibooks) and **risk & liquidation systems**, with optimized API design, caching, and performance tuning.
- Engineered a **high-throughput Kafka data bus** for market data and order flow.
- **Managed a 3-person team**, steering architecture, reviewing PRs, and driving **delivery of critical systems**.
- Designed and shipped a **gamified Telegram mini-app** for options trading, from UX to **wallet integration**.

Principal Software Engineer • ◼ Madverse
Feb. 2024 – June. 2024

- Interacted with CTO and leadership to **discuss product plans** and provided timelines, suggestions & blockers
- Implemented features such as AI Cover Art using **NextJs, Prisma, OpenAi & Stability SDXL APIs, tRPC and S3**
- Developed new internal flows for **payment processing** for multi-country users using **Stripe + Razorpay**
- Fixed **UX flows and bugs** throughout the platform, reducing customer churn significantly

Data Associate • ◼ Innovaccer
Feb. 2022 – Nov. 2022

- Developed data and **ETL** pipelines for mission critical analytics using **SQL, ElasticSearch, python & Azkaban**
- Worked with big data and created statistics and dashboards to find insights & metrics using **PowerBI and python**
- Resolved **product level issues** and integrated features, reducing the time taken in getting multiple teams involved

EDUCATION

Bachelor of Technology - Computer Science
📖 Jaypee Institute of Information Technology
📅 2022