

Kanishk Singh

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Education

Indraprastha Institute of Information Technology, Delhi
B.Tech. in Computer Science

Graduated Jan 2024
Delhi, New Delhi

Experience

PLAYDEX BOT | [LINK](#)

May 2025 – Oct 2025

Full Stack Developer

Freelance

- Built a modular, full-stack platform (backend API, Discord bot microservice, and React frontend) supporting real-time gameplay, leaderboards, and guild-scoped accounts.
- Secured platform and auth flows with Discord OAuth2 (Passport.js), JWT sessions, role-based access and connect-mongo session store; added API routes and admin controls for moderation & analytics.
- Engineered game systems and retention mechanics: 7+ original games (slots, blackjack, roulette, dice, coin flip, duels, progressive jackpots), collection & rarity progression (guaranteed-rarity + drop-rate buffs), trading/selling flows, and admin moderation tools.
- Backend reliability & scale: services handle 2–3 million AWS Lambda requests per month, use Redis + Bull for job queuing and rate limiting, and maintain consistent game state between bot and web dashboard via websocket / polling patterns.
- Built a persistent in-game economy: 900 wallets, 1000 user collections, and 250k transactions recorded in the database, with secure wallet & transaction history handling.

Tech Stack: Node.js, Express, Discord.js, ReactJs, TailwindCSS, Zustand, React Query, Framer Motion, Howler.js, MongoDB (Mongoose), Redis + Bull, AWS Lambda, Passport.js (Discord OAuth2), JWT

LIVE STREAMER STATUS | [LINK](#)

Aug 2024 – Oct 2024

Full Stack Developer

Freelance

- Engineered a real-time web application serving **100+ daily users**, boosting engagement by 25% through intuitive UI and live updates.
- Implemented a **100% automated monitoring system** with a cron job to check and update live statuses, eliminating 8 hours of manual monitoring per week and enhancing data accuracy.
- Integrated Twitch and YouTube APIs to fetch real-time streamer data, including live status and content, resulting in a 20% increase in user interaction.
- Leveraged **Redis caching** to reduce server response times by 40% and cut API costs by 20% via rate-limiting strategies.
- Implemented dark mode based on user feedback, improving session duration by 15%.

Tech Stack: ReactJS, Node.js, Express.js, MongoDB, Redis, YouTube API, Twitch API

Projects

REMOTE CODE EXECUTION PLATFORM ([LINK](#)) | *ReactJS, Node.js, Express.js, Docker, Redis, Bull, Nginx*

- Architected a secure, multi-language code execution platform handling multiple daily submissions, delivering **less than 2s response for 95% of jobs**.
- Containerized each worker in Docker with strict CPU/memory quotas, Linux timeout and process limits to neutralize infinite loops, fork-bombs, and other malicious patterns within isolated sandboxes
- Optimized job throughput by 40% through **Docker containerization and Redis-backed Bull queues**.
- Orchestrated horizontal scaling with **Nginx load balancers** to support 200+ concurrent requests without degradation.
- Hardened containers using **seccomp profiles**, reducing potential attack surface to zero.

Technical Skills

Languages & Programming: C++, JavaScript (ES6+), Java

Programming Concepts: Data Structure and Algorithms, OOPS, OS, DBMS

Web Development & Frameworks: React.js, Node.js, Express.js, REST APIs, TailwindCSS, Redux, JWT, Bcrypt

Databases: MongoDB, Redis, Mongoose

DevOps & Tooling: Docker, Nginx, Git, Linux, BullMQ, Postman, Vercel, Render, Netlify