Kanishk Singh

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Education

Indraprastha Institute of Information Technology, Delhi   Graduated Jan 2024
B.Tech. in Computer Science   *Delhi, New Delhi*
The Air Force School   Graduated Mar 2018
CBSE   *Delhi, New Delhi*

Experience

FREELANCE - LIVE STREAMER STATUS | LINK   Aug 2024 – Oct 2024
Full Stack Developer   *Remote*
- Developed a real-time web application for tracking live streamers, improving user engagement for around 100 daily users.
- Implemented a **100% automated monitoring system** with a cron job to check and update live statuses, eliminating manual monitoring and enhancing data accuracy.
- Integrated Twitch and YouTube APIs to fetch real-time data on streamers, including their live status and content, leading to a significant increase in user interaction.
- Utilized **Redis for caching** API requests, improving performance by 40%, reducing server response times, and cutting down API costs through rate limiting.
- Added a **dark mode feature** based on user feedback, which improved the overall user experience and increased retention.

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*
- Built a scalable remote code execution platform supporting multiple languages (JavaScript, Python, Java, C++), allowing users to submit and execute code in isolated environments.
- Improved job processing efficiency by 40% by leveraging **Docker containerization** and **Redis-backed Bull queues** for managing asynchronous tasks.
- Scaled the system horizontally by deploying **Nginx load balancing**, enabling the platform to handle concurrent requests seamlessly and manage multiple app instances.
- Secured the execution environment with **seccomp profiles**, which confined potential harmful attacks within containers, safeguarding the host system.
- Achieved fast execution times, with most code submissions processed in **less than 2 seconds**, ensuring a quick response for users.
- Used **dynamically generated language-specific Docker containers** to achieve secure and isolated code execution environments.

EDTECH PLATFORM – STUDYNOTION (LINK) | *ReactJS, Node.js, Express.js, MongoDB, Razorpay API, Cloudinary, JWT, Bcrypt*
- Developed a fully functional ed-tech platform for creating and consuming educational content.
- **Integrated Razorpay** for payment processing, increasing purchase success rates by 30%.
- Implemented **OTP-based user authentication**, along with **JWT-based session management** and **role-based access control**, enhancing security across the platform.
- Reduced media load times by 20% through optimized storage with **Cloudinary**.

Technical Skills

Languages & Programming: C++, JavaScript (ES6+), Java
Web Development: React.js, TailwindCSS, Node.js, Express.js, Redux, JWT, Bcrypt, REST APIs
Tools & DevOps: Docker, Dockerode, Nginx, BullMQ, Git, Postman, PM2, Linux
Databases & Others: MongoDB, Redis, Mongoose, Arduino, Raspberry Pi, Vercel, Render, Netlify, SCRUM

Certificates

Web Development Bootcamp[Mern Stack] by Codehelp | CERTIFICATE
- Completed a 4.5-month intensive MERN stack bootcamp focused on real-world applications, deployment best practices, and Git workflows.