

NAKUL KUMAR SINGH

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Education

Birla Institute of Technology and Science, Pilani

August 2019 - 2024

Dual Major in M.Sc. Mathematics and B.E. Electrical and Electronics Engineering

- **Relevant Coursework:** Computer Programming, Discrete Mathematics, Data Structures and Algorithm, Operating Systems, Applied Statistical Methods, Graphs and Networks, Optimization

Experience

Senior Software Developer

October 2023 – Present

Tria (prev. Threely)

New York (Remote)

Worked as a Fullstack developer on the company's flagship decentralized products

- Lead the development of **chain abstraction protocol** and **transaction modules** on both **web and mobile apps** enabling cross chain interoperability for both **EVMs** and **top non-EVMs**, crossing **\$50M** in yearly volume.
- Integrated **EIP-7702** module for transactions enabling features like **bundled, pay gass with any token and sponsored transaction** on EVM and built the relayer for partial signing and sponsoring transactions on Solana
- Led the development of **wallet infra SDKs** for platforms like, **telegram-miniapps** with **>2M active monthly user**
- Abstracted the core logic and built a wrapper around react SDK, making it compatible with all the frontend frameworks
- Led the development of the **AI bot**, enabling people to create and use wallet from platforms like whatsapp and telegram
- Implemented complex feature like **claimable wallets** and **mint NFT** from phone camera using **prompt engineering**

Tech Lead

January 2024 – June 2024

GPLAN

BITS, Pilani (Remote)

Worked as a research developer under corporate thesis for completion of academic requirement

- Worked on the algorithm for layout generation using graph theory, generating **thousands of layout** for a given graph
- Optimized the algorithm to reduce generation time by **10x**, also built the back-end infra to interact with the algorithm
- Built the frontend webapp for users to interact with algorithm, providing users a playground to see algorithm in action, user can draw the graphs in input editor and save, edit or export the generated floor plans in the output editor.
- Implemented several complex feature like, wall movement, addition of new wall, addition of asset, etc. all in a very intuitive UI, **smartly calculating re-render** time reducing unnecessary re-renders on each action by **1000X**
- Implemented OAuth with payment gateway, advancing a research POC to industry-ready software in under **6 months**

Software Development

September 2022 – September 2023

Concise Labs

Worked as a full-stack developer, bridging both front-end and back-end development

- Enhanced SEO and site speed by transitioning the existing React.js frontend to **Next.js** and serverless using firebase
- Designed a robust suggestion engine, encompassing both backend and frontend components based on live data
- Optimized applications performance and search speed by implementing Redis caching, and prioritizing top queries
- Revamped schemas for seamless **GPT-4 API integration**, boosting search result accuracy from **12%** to **80%**

Software Development Intern

June 2022 – August 2022

Consensys

Dubai (Remote)

Worked as a frontend developer on the company's flagship decentralized product

- Development of the company's product i.e. crypto wallet using React, Typescript, Redux and Etherjs
- Followed security measures providing end-to-end encryption for user data and enabling client-side key management
- Implemented functionalities which reduced load times and optimized the performance by applying caching
- Provided a fully customizable SDK to the client with the option of calling individual functionalities independently

Technical Skills

Languages: Javascript, Typescript, SQL, C++, Python, C, Go, HTML5, CSS

Technologies/Frameworks: ReactJs, NextJs, React Native, Expo, Express, TailwindCSS, Zod, Etherjs, Web3js, Wagmi, Anchor, Viem, Solana Wallet Adapter

Cloud & Tools: Subgraph, Git, GitHub, AWS, Firebase, Postman, Docker, IPFS

Databases: MySQL, PostgreSQL, Monogodb, Redis, VectorDB