

Srijan Sarkar

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Summary

Software Engineer with one year of production experience building **React** and **TypeScript** products, alongside hands-on full-stack development using **Next.js**, **Go**, **Python**, and **PostgreSQL**. Built AI-powered applications integrating **LLM APIs**, typed schemas, interactive editors, authenticated **REST and WebSocket APIs**, **ORM-backed data models**, and background workflows. Strong **unit-testing** habits using **Jest**, **Vitest & Playwright** and experience shipping documented features through code review in **fast-moving remote teams** across **timezones**.

Education

Heritage Institute of Technology

B.Tech in Computer Science

Coursework: Data Structures & Algorithms, Operating Systems, Network Security

August 2023 – June 2027

GPA: 8.2/10

Experience

Hacken – Blockchain Security & Compliance

Front-end Engineer

Aug 2025 – Aug 2026

Remote

- Built and shipped **CORE3**, a global crypto regulatory platform, using **React** and **TypeScript**, taking the product from a blank editor to real institutional users evaluating on-chain and counterparty risk
- Integrated backend APIs using **TanStack Query** for caching, synchronization, and background refetching, designing frontend data flows around asynchronous server state instead of maintaining hand-rolled request and cache logic
- Maintained **80% unit-test coverage** across CORE3 and the Hacken Rounds platform using **Jest**, **Vitest**, and **Storybook**, allowing refactors and feature changes to ship with lower regression risk
- Worked within a **10-person remote engineering team** across timezones through Git, GitHub pull requests, code reviews, pair programming, and sprint planning, reviewing implementation quality and shipping production features iteratively

Skills

Languages: TypeScript, Go, JavaScript, Java, Python, SQL

Backend Systems: REST APIs, WebSockets, Concurrency, JWT, OAuth, PostgreSQL, Express, pgx/v5

Frontend: React 19, Next.js, Redux, TanStack Query, GraphQL, HTML, CSS

Tools & Testing: Git, GitHub, Docker, Prisma, Drizzle, Postman, Supabase, Jest, Vitest, Playwright, Storybook

Core CS: Data Structures & Algorithms, Operating Systems, Object-Oriented Programming, Database Systems

Projects

Veyra – AI Voice Workflow Orchestration Platform

GitHub: github.com/srijan399/veyra

Hackathon Project – August 2026

- Built an end-to-end **TypeScript** application using **Next.js** and **React 19**, delivering an interactive workflow graph, editor panels, campaign configuration, CSV contact import, profile management, and structured result views
- Designed a **Gemini-powered AI pipeline** that converts plain-English requirements into typed conversation graphs, refining prompts, **Pydantic/Zod schemas**, validation rules, and output rendering before compiling workflows into executable **CALL-E** instructions
- Implemented authenticated **REST APIs** and a relational **PostgreSQL** model with **Drizzle ORM** and row-level security, integrating the third-party **CALL-E API** through idempotent webhooks and scheduled background dispatch across the Next.js application and Python service
- Maintained **34 unit tests** covering AI schemas, API safety, CSV parsing, call lifecycle, and viewport logic, while documenting architectural and security decisions to support independent development within a fast-moving two-person team

Se3k – Slack Workspace Knowledge Graph

GitHub: github.com/srijan399/se3k | [Slack Agent Builder Challenge](#)

July 2026

- Architected a **TypeScript** ingestion system that converts Slack messages into a weighted knowledge graph of people, projects, and decisions, exposing the resulting data through a **RESTful API** independently of the event-ingestion layer
- Designed a **time-decayed graph-ranking algorithm** using exponential decay with a 30-day half-life to score contributor expertise, choosing decayed edge weights over raw message counts to prevent historically active users from permanently dominating rankings
- Implemented **Slack OAuth** for workspace authorization and enforced **idempotent event processing** keyed on Slack event IDs, ensuring retried or replayed events could not create duplicate graph state or corrupt contributor scores
- Integrated **GroqCloud** for low-latency entity extraction and **Jina embeddings** for semantic subgraph retrieval, then built a React dashboard to make graph relationships and expertise rankings queryable end-to-end

SocketsGo – Real-Time Chat Backend

GitHub: github.com/srijan399/socketsgo

Personal Project – July 2026

- Designed a room-based **WebSocket connection hub** in Go (`map[string]map[*websocket.Conn]bool` guarded by `sync.Mutex`) to safely broadcast messages across concurrent goroutines while preventing race conditions during connection management
- Implemented self-healing broadcast logic that detects failed socket writes and immediately evicts dead connections, preventing disconnected clients from degrading message delivery to active users
- Persisted chat history as append-only **JSON-line logs** and enforced a regex-based allowlist on room and chat identifiers, preventing untrusted identifiers from becoming filesystem paths and closing a potential path-traversal vector
- Used Go's standard-library `net/http` router with method-aware routes rather than a third-party framework, minimizing dependencies and keeping the service's architecture small, explicit, and idiomatic

Achievements

- ETHGlobal Finalist** at New Delhi among 600+ projects and 1900+ hackers for building Dike, receiving a **\$5000 prize and \$500 flight credit** for a future ETHGlobal Hackathon
- Won a **\$4000 bounty** at the **EduChain Hackathon (Semester 3)**, ranking **6th among 900+ projects** for building **ALTnode**
- Secured the **Base Pool bounty** at **Unfold 2024**, a bounty at the **East India Blockchain Summit (IIT KGP)**, and won the **AI/ML Track at KSEC** for building **Ruins of Rome**