Sachin Raja

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EDUCATION

University of California, Los Angeles

September 2023 – Present (expected 2027)

BS in Computer Science

EXPERIENCE

Intern

June 2025 – September 2025

Vercel

- Implemented request collapsing and origin shielding for Vercel's global Content Delivery Network impacting 25 requests/second, serving them from Vercel's distributed cache instead of the origin server
- Implemented a multilayered locking system which added greater cache coherency and intra-region and node synchronization
- Refactored the codebase to support streaming responses from the Vercel proxy to the client for a faster time to first byte

Intern

June 2024 – September 2024

Vercel

- Streamlined the process of creating and updating backend API services, enabling continuous deployments and reducing the time to deployment from up to a day to a few minutes
- Proposed and developed a reverse proxy handling over 3k requests/second to 80 backend services
- Utilized container orchestration and IaaS technology to manage the deployment of services
- Built a robust alert system for API services ingesting logs from distributed systems and catching 2 incidents
- Wrote internal documentation including an RFC and runbook

Project Lead

November 2021 – September 2023

tRPC

- Led the development of an open-source library making TypeScript server-client communication effortless with RPCs
- Collaborated with others to grow project to 30,000 GitHub stars and 250,000 weekly downloads
- Proposed library upheaval and developed improvements while communicating with users to improve developer experience in a major version
- Developed a codemod for users to easily migrate to newer version of the library
- Built integrations to other frameworks (swr, Vite, Bun, and more) to help users and expand library usage
- Updated large-scale CI system to ensure support for other libraries and frameworks

Intern

June 2022 – August 2022

Tola

- Worked alongside engineers at a startup to make billing more accessible for small businesses
- Built components for the TypeScript/React website and wrote backend API code querying and mutating the database
- Implemented a user notification system for important events, such as when a user's bill is due

PROJECTS

tRPC Drift | TypeScript, Next.js, PostgreSQL

November 2022 – September 2023

- Developed a tool for developers to visualize changes to a backend API
- Created a framework to serialize the inputs and outputs of an API using the TypeScript Compiler
- Built a playground for users to test their API in development

${\bf Open \ Source \ Contributions} \ | \ {\it TypeScript}$

November 2021 – Present

- Added jump-to-definition support for API calls in Remix, a popular Node.js framework
- Improved module resolution compliance in Vite, a popular JavaScript build tool
- Updated build pipelines for BuilderIO/Mitosis and tailwindlabs/tailwindcss

TECHNICAL SKILLS

Languages: JavaScript, TypeScript, C++, Python, HTML/CSS, Java, SQL

Frameworks: React, Node.js, Next.js, Prisma, TailwindCSS Developer Tools: Git, Docker, Kubernetes, Terraform