

# Aryan S Rao

Software Engineer

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## SUMMARY

Self-taught full-stack developer who builds fast web apps and systems projects end to end. Comfortable across Rust services, WebRTC, and Next.js/React frontends with a focus on performance.

## EXPERIENCE

### Luveian

Oct 2024 - Present

Full Stack Software Engineering Intern | Freelance

- Architected responsive web applications using React and Node.js, reducing page load time by 40%
- Designed UI/UX in Figma and translated to production code, achieving 98% design-to-code fidelity

### Shyam Kemicals

Nov 2024 - Jan 2025

Full Stack Developer | Freelance

- Optimized website achieving 95+ Lighthouse scores with load time under 2 seconds

## PROJECTS

### CottonOS

Feb 2026

Rust powered Operating System

Custom OS kernel from scratch with memory management, interrupt handling, 4KB paging, VGA driver, keyboard handler, and double-buffering GUI. Memory usage optimized 35%.

Stack: Rust, x86-64 Assembly, UEFI

### TheySynced

Dec 2025

Real-Time Collaborative Whiteboard

Collaborative drawing platform. WebSocket server handles 10,000+ messages per second with sub-10ms latency.

Stack: Rust, Axum, SurrealDB, WebSocket

### Glimpse

Dec 2025

P2P Video Communication Platform

Serverless peer-to-peer video chat with 720p HD quality, sub-200ms latency, 95% NAT traversal connection rate, and support for 500+ concurrent users.

Stack: WebRTC, PeerJS, STUN/TURN, JavaScript

### DeepSeek VS Code Extension

Mar 2025

AI Code Assistant

VS Code extension integrating DeepSeek AI for intelligent code assistance. Acquired 8,000+ users on the VS Code Marketplace.

Stack: TypeScript, VS Code API, Ollama

## SKILLS

Languages: Rust, TypeScript, JavaScript, Python, Java, C/C++, x86-64 Assembly, SQL

Frontend: React, Next.js, Three.js, WebGL, GSAP, Tailwind CSS, Yew, Framer Motion

Backend: Node.js, Axum, Tokio, Warp, Spring Boot, WebSocket, REST, GraphQL

Databases: PostgreSQL, MongoDB, SurrealDB, MySQL, Supabase, Firebase, Redis

DevOps: Docker, Git, CI/CD, Vercel, Netlify, Render, Cloudflare, AWS, Linux

Design: Figma, Adobe Photoshop, Blender, UI/UX

Specialties: WebRTC, P2P Networking, Systems Programming, OS Development, Performance Optimization

Testing: Vitest, Jest, Playwright, Postman, k6

## EDUCATION

### B.Tech Computer Science Engineering

2023-2027

Krishna Engineering College, Bhilai, CG