Adapa SriVatsav

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EDUCATION

Methodist College of Engineering & Technology — Hyderabad, India
B.E. in Computer Science and Engineering (AI & ML) — *Sep 2023 – Sep 2027*

St Paul's High School, Hyderabad — Graduated 2023
High School *Grade: 9.8*

EXPERIENCE

Rootlex Technologies — Software Development Intern (MaterialFlow) — June 2026 – August 2026
Next.js, Bun, Elysia, PostgreSQL, Prisma ORM, PWA

- Owned full-stack feature development on a production Next.js app — built UI components and wired them to REST APIs backed by PostgreSQL/Prisma, shipping end-to-end from frontend to database.
- Designed and integrated REST API endpoints using Elysia on Bun for order management workflows, consumed by both the web app and PWA clients.
- Built voice-note order intake: captured audio via MediaRecorder API, transcribed server-side (Gemini/Whisper), and used AI to parse the transcript into structured order line items (items, quantities, retailer) as a draft routed for staff approval.
- Built PDF order intake: sent PDF bytes directly to Gemini's multimodal API (no OCR or text-extraction step), letting the model read layout and tables natively to produce structured order data (items, quantities, retailer) as a draft routed for staff approval.
- Evaluated Elasticsearch vs. Weaviate for hybrid semantic search using embedding models, selecting native RRF-based retrieval to solve mixed-intent search + recommendation routing.

PROJECTS

beyondATS — AI Job Matching & Voice Screening — GitHub
Next.js 14, TypeScript, MongoDB Atlas, GPT-4o-mini, OpenRouter API, Retell AI SDK, Twilio

- Built a 4-stage AI hiring pipeline (resume parsing → hybrid skill matching → AI voice call → GPT-4o-mini evaluation) that cuts screening time to under 5 minutes; **3rd place at NYXORA MREM 2026 national hackathon**.
- Designed a hybrid matching engine: 70% semantic skill graph (40+ skill families with exact/fuzzy/transitive matching) + 30% 8-dimensional embedding vectors with cosine similarity, and gradient-based adaptive weight learning (lr = 0.03) driven by employer invite/reject feedback.
- Integrated Retell AI + Twilio for real phone screening calls with dynamically generated questions per candidate resume; post-call transcript evaluated by GPT-4o-mini across 5 weighted dimensions (Technical Depth 30%, Communication 25%, Problem Solving 20%, Culture Fit 15%, Confidence 10%).

AI Forge — Multi-Agent Harness for AI App Generation with Docker Isolation — Live | GitHub
React, Bun, TypeScript, Express, Inngest, Docker, Socket.IO, PostgreSQL, Prisma, Better Auth, Anthropic SDK, AWS EC2

- Built a multi-agent harness (setup, triage, planning, file-generation and fix agents) that turns a prompt into a running app: files are generated in dependency-aware parallel batches, then the dev server is verified via port detection + HTTP probe, with auto-fix (install packages / regenerate file, up to 3 tries).
- Orchestrated it with event-driven Inngest workflows (setup → coding hand-off); each command, file generation and verification is a memoized step, so retries resume rather than restart, with per-project concurrency limits and failure state saved to PostgreSQL.
- Built a session-based runtime: per-project Docker container, `node-pty` session and Socket.IO room streaming agent and terminal output, rebuilt from the DB after restarts; Better Auth cookie sessions scope every API call per user.
- Deployed with a multi-stage Docker build and Docker Compose on AWS EC2 (backend + self-hosted Inngest, shared workspace volume), frontend on Vercel, live previews on wildcard TLS subdomains, with cross-subdomain cookies and CORS allow-lists.

WebRTC P2P Video Call App — GitHub
React, TypeScript, Vite, Node.js, Express, Socket.IO, WebRTC

- Implemented the full WebRTC handshake from scratch (createOffer → setLocalDescription → answer → setRemoteDescription → ICE candidate exchange) using Google STUN (`stun.l.google.com:19302`) for public IP discovery.
- Used Socket.IO exclusively for SDP/ICE signaling so that all video and audio flows peer-to-peer with zero server relay once the P2P tunnel is established.

AI Voice Agent for Automated Phone Calls — GitHub
React, Node.js, Express, Prisma ORM, SQLite, Retell AI SDK

- Built a full-stack AI customer support platform that automates voice call interactions using Retell AI, with persistent conversation history tracking via Prisma ORM and a real-time call analytics dashboard; **1st place at HackNovate 2025 national hackathon**.

TECHNICAL SKILLS

Languages	JavaScript, TypeScript, SQL, HTML/CSS
Frontend	React, Next.js 14, Tailwind CSS, shadcn/ui, Framer Motion, Monaco Editor, xterm.js, Vite
Backend	Node.js, Express, Elysia, Bun, REST APIs, Socket.IO, WebRTC, Inngest, Event-Driven Design, Passport.js
Databases	PostgreSQL, MongoDB Atlas, MySQL, SQLite, Redis
AI & LLMs	Agentic Workflows, Multi-Agent Systems, Tool Calling, Claude Opus, Qwen, GPT-4o-mini, Gemini, Anthropic SDK, Groq, OpenRouter, Retell AI, Prompt Engineering, Twilio
Auth & Security	Better Auth, Google/GitHub OAuth, JWT, httpOnly Cookies, Cross-Subdomain Cookies, Redis Blacklist
DevOps & Tools	Docker, Docker Compose, AWS EC2, Vercel, Nginx, Linux, Git, GitHub, CI/CD, Prisma ORM, Mongoose

ACHIEVEMENTS

- **1st Place** — National Hackathon, Google Developer Community **(HackNovate 2025)** — AI Voice Agent
- **3rd Place** — National Hackathon, Google Developer Community **(NYXORA MREM 2026)** — beyondATS