

# Chad Avalon

Senior Software Engineer | AI, Product Focused | Full Stack/Front End

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## TECHNICAL SKILLS

**Proficient:** TypeScript, React, Redux, Next.js, Zustand, shadcn, SCSS, Node, Python, Django, MongoDB, Prisma, Cypress, CI/CD, Docker, RunPod, Vercel, AWS (EC2, Lambda, S3, CloudWatch, SQS), GCP (Compute Engine, Cloud Storage, Cloud Functions, BigQuery), RabbitMQ

**Exposure:** Redis, MySQL, Postgres, Supabase, Ruby, Rails, Angular, Elm, three.js, GraphQL, Kubernetes, Terraform, Figma, Photoshop, Sketch, vLLM, HuggingFace, Pinecone, LangChain

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## PROFESSIONAL EXPERIENCE

### Routly | FoundingEngineer | Remote Jan 2025 – Present

- Built carbon-aware LLM router with Node.js and WattTime API that lowered average workload carbon intensity by ~40% per session, routing between GCP, RunPod, and Modal GPU clusters.
- Architected multi-region platform with AWS EC2/Lambda, Redis for session management, RunPod GPU instances, vLLM inference engine, HuggingFace model integration, Next.js API routes, and Vercel edge deployment.
- Next.js frontend with TypeScript, React hooks, and Vercel edge functions, implementing real-time model switching UI/UX and session persistence with Redis that improved user response latency by 25%.

### Somnology | LeadFrontendEngineer | BayArea June 2023 – Feb 2025

- Led development of a sleep apnea management dashboard for physicians using React/TypeScript/Node.js, integrating and aggregating data from 7 wearable device types (Fitbit, Oura, etc.) via REST APIs with Python/OpenRouter, implementing RAG for clinical data search.
- Built CPAP compliance charts in React/Redux that cut patient treatment onboarding time by 35%.
- Automated device data aggregation workflows with Python ETL pipelines, Node.js microservices, and MongoDB storage, reducing manual entry errors by over 60%.

### Zulily | SoftwareEngineer | Seattle Dec 2019 – Nov 2022

- Built vendor onboarding portal with React/Redux that reduced product listing time for vendors by 150%.
- Developed cross-functional infrastructure improvements with AWS (EC2, S3, CloudWatch) that enhanced logging and error reporting across 4 teams, reducing mean time to resolution by 30%.
- Led cross-team initiative to revive and standardize internal React component library, facilitating alignment meetings across 5 teams and achieving 70% adoption rate within 6 months.

### Syndio | SoftwareEngineer | SantaCruz Oct 2017 – Jun 2019

- Implemented pay equity calculator that added ~\$100K in new sales within the first three months.
- Built legal analytics dashboard (React, TypeScript, MongoDB, Python) with 5 views, cutting review time 40%.
- Built legal analytics dashboard with React/TypeScript frontend, Python/Django REST API, and MongoDB aggregation pipelines delivering 5 analytical views, cutting review time 40%.

### Montaia Global | Frontend Dev (contract) | Santa Cruz Sep 2016 – May 2018

- Built event and lodging management platform in React/Redux with Node.js/Express backend and MongoDB that increased event page hits by 300%
- Designed frontend architecture that reduced component file size 3x and improved test coverage to 90%.

## EDUCATION

M.S. Computer Science – Sofia University, Palo Alto, CA — 2016

M.A. Integral Psychology – JFK University — 2012