

# SUMMARY

Engineering leader with extensive experience in start-ups, serving various key roles in software and product development.

Advanced expertise in TypeScript and Node.js, with experience across frontend, backend, AI and infra.

Demonstrated skill in architecting applications, researching emerging tech, and improving the developer experience.

Enjoyer of Cloudflare Workers.

## SKILLS

### Languages

TypeScript, JavaScript

### Frameworks

Tanstack Start, Next.js

### Frontend

#### Tools

HTML5, CSS3, React, Tailwind, Motion, Radix/Base UI, Shadcn, Urql, Apollo Client, Tanstack DB, Tanstack Router, Storybook, Electron, Recharts

#### Concepts

SEO, A11y, I18n, Atomic design, SSR, CSR, ISR, SSG, PPR, Virtualization, Lazy loading

### Backend

#### Tools

Node.js, Elysia, Hono, Nest.js, Express, Cloudflare Workers, D1, Postgres, Drizzle, Redis, Pothos, GraphQL Yoga, Socket.io, pluv.io, tRPC, Lucia, OpenAuth

#### Concepts

Authentication, DB normalization, Sharding, DB atomicity, PubSub, Caching, CORS, Websockets, Server-sent events, Concurrency, Rate limiting



# David Lee

Staff Software Engineer / Engineering Lead

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## PROFESSIONAL EXPERIENCE



### svall.ai (stealth)

*Founder*

Aug 2025 - Present

- ▷ Built a hybrid web and desktop app for deriving context from meetings (using Tanstack Start, Electron, Tanstack DB, Tanstack AI, AI SDK, Mastra, Elysia, Drizzle, Cloudflare Workflows, Vectorize, Durable Objects, and more).
- ▷ Created a MacOS binary in Swift to be able to record desktop audio, stream it to a Durable Object for transcription with AssemblyAI, and stream the transcript back to the frontend via server-sent events.
- ▷ Upserted embeddings of transcript turns groupings with conversation contexts to Vectorize for document retrieval and semantic search via cosine similarity.
- ▷ Created durable execution workflows with proper idempotency and retries to update database entries and embeddings, generate LLM responses, track token usage and push websocket messages to the frontend.



### pluv.io

*Founder*

Aug 2022 - Present

- ▷ Built real-time, type-safe packages for Node.js, Cloudflare Workers, and React, supporting authentication, rooms, custom events, awareness, presence, and CRDT storage (with yjs and loro-crdt).
- ▷ Built a platform for deploying real-time infrastructure to Cloudflare's edge network via lambdas that cloned and built GitHub repositories, and used Wrangler to deploy Workers and Durable Objects, HTTP-streaming the CLI outputs to the frontend (using GitHub webhooks, Terraform, AWS (ECR, S3, Lambda), QStash, and Cloudflare (Workers, Durable Objects, D1)).
- ▷ Added E2E tests with Playwright, simulating runs on singular and distributed Node.js servers and Cloudflare Workers.
- ▷ Pivoted to a real-time API SaaS, by generating secure API keys encoded with PBKDF2:SHA256 and tracking billable usage with Cloudflare Analytics Engine.
- ▷ Performed developer outreach, product development and marketing to create interest, get an initial user base and generate revenue.



### KarmaSuite

*(Founding) Staff Engineer / Engineering Lead*

Mar 2023 - Feb 2025

- ▷ Architected and built the bulk of the initial KarmaSuite application as the 1st engineer (using Next.js, Turborepo, Tailwind CSS, tRPC, prisma, and Storybook), including an atomic design system with Radix UI.
- ▷ Unified and integrated 3rd party accounting APIs (e.g. QuickBooks, NetSuite, etc.) to ETL pipelines so that data can be written to and from KarmaSuite.
- ▷ Significantly improved performance of SQL by unifying and denormalizing multiple database tables to support more performant bulk reads and writes of tens of thousands of rows in cron and long-lived background tasks.
- ▷ Invented a highly performant algorithm to allocate tens of thousands of expenses to restricted funding sources that minimizes wasted dollars for non-profits using partitioning, set theory and hot-swappable heuristics for an A\* algorithm.
- ▷ Created and reviewed numerous PRDs, RFCs and TADs for the engineering org.

# SKILLS (CONTINUED)

## AI

### Tools

AI SDK, Tanstack AI, Gemini, Grok, Claude, OpenRouter, Mastra, AssemblyAI, Pgvector, Vectorize, Turbopuffer, Temporal, Cloudflare Workflows, Ingest

### Concepts

Semantic search, Embedding, RAG, Durable execution, Idempotency, Context window, Token management

## Misc.

### Tools

Linux, Mac, Git, Cursor, Figma, GitHub Actions, AWS, Cloudflare, Vercel, Docker, Pulumi, CDKTF, Terraform, Turborepo, Sentry, Changesets, Playwright, Vitest, Octokit, Stripe, Grafana

### Concepts

CRDTs, Observability, OTel, IaC, Monorepos, Containerization

# PROFESSIONAL EXPERIENCE



## Openbase (shut-down)

### Staff Frontend Engineer

Apr 2021 - Feb 2023

- ▷ Proposed then executed a migration strategy to port the app from a SPA-Parcel app to Next.js, Apollo, Styled-Components, Storybook and Codegen.
- ▷ Improved web vitals, a11y and SEO to boost Lighthouse scores from <20 to >90.
- ▷ Created an Algolia-Apollo interoperability module to power Openbase's search, that populated @apollo/client's normalized cache, compatible with Next.js SSR.
- ▷ Authored an a/b + split-testing framework that integrated with Google Analytics and Amplitude that segmented users by percentage or special conditions.
- ▷ Created serverless functions to reroute traffic from old sites and generate custom README badges with metrics from Openbase for package maintainers.
- ▷ Significantly improved complex data-grid performances through windowing and minimizing re-renders via memoization and careful opt-outs of state updates.



## MakePurple (shut-down)

### Website Project

Sep 2021 - Apr 2022

- ▷ Built with Next.js, NextAuth, Prisma, Nexus, Apollo Server, TailwindCSS, Urql, Storybook, PlanetScale, Upstash, Octokit, Pnpm workspaces and Turborepo.
- ▷ Authored an internal CSS-in-JS library for emails in React, a rich text editor with Slate, heat-maps with Visx, a type-safe GraphQL client for Octokit, and more.
- ▷ Improved accessibility with support for screen-readers and keyboard navigation with Radix and Headless UI.
- ▷ Implemented GraphQL for: activity feeds, GitHub operations, file uploads, friend suggestions, real-time chat, notifications, and comments with Nexus + Prisma.
- ▷ Integrated with GitHub's API to fetch and display user profile data, support (dis)liking profiles and repos, and implementing a search for users and repos.



## Toastel (shut-down)

### Senior Full Stack Engineer

Jan 2020 - Mar 2021

- ▷ Created an atomic design system from scratch, while improving accessibility and minimizing client bundle size.
- ▷ Authored an internal charting library with Visx, a data-grid library with React-Window, responsive emails with MJML, animations with Framer-Motion, and more.
- ▷ Created several GraphQL-Nexus plugins to rate-limit fields, validate inputs, and prevent malicious queries with complexity and depth limits.
- ▷ Coded over 300 components and 400 stories on Storybook, with snapshot tests.
- ▷ Achieved 95-100 on all Google Lighthouse metrics.
- ▷ Implemented JWTs with refresh-tokens, blacklists and retries with Redis + Apollo.
- ▷ Implemented GraphQL for: full-text search with Algolia, emails with Nodemailer, subscriptions and payouts with Stripe, presigned URL uploads with S3, localized timezones with Google Maps, and CRUD with Nexus + Prisma.



## Onfleet

### Senior Full Stack Engineer

Jan 2019 - Jan 2020



## Outward (acquired by Williams Sonoma)

### Senior Software Engineer

Jan 2018 - Jan 2019



## Bosera Funds & Newport Asia

### Software Engineer

Jun 2015 - Dec 2017