

David Idol

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Experience

Volly

Founder

Mar 2026 – present

Raleigh, NC

- Architected a secure [developer platform](#) to deploy, sandbox, and govern internal AI applications.
- Designed workload isolation, fine-grained access control (RBAC/ABAC), and secure proxy gateways to prevent unauthorized data access across applications.
- Built telemetry and security audit logging infrastructure to track access to company resources across multi-tenant environments.

VITL & District

Fractional Staff Software Engineer

Mar 2025 – present

New York, NY (Remote)

- **District:** Architected an autonomous AI agent generating dynamic UI themes, marketplace layouts, and product schemas from natural language prompts; built real-time visual canvas editing tools and secure merchant APIs.
- **VITL:** Led full-stack architectural rewrite and cloud migration for an e-prescription platform; engineered HIPAA-compliant audit logging, row-level database security (RLS), and zero-trust transactional workflows.

Discord

Engineering Manager - Shop Team

June 2023 – Mar 2025

San Francisco, CA (Remote)

- Led engineering for the global "[Shop](#)" ecosystem across Desktop, iOS, and Android, beating annual revenue targets by >200% through iterative product experiments and algorithmic ranking.
- Engineered secure ingestion pipelines and asset validation for 3P enterprise IP drops (e.g., Paramount, Riot Games), enforcing stringent access controls to prevent early data leaks.
- Optimized API response times and client prefetching by >50%, ensuring high-throughput reliability during peak global product launches.

Snap Inc

Engineering Manager & Tech Lead

Mar 2015 – Feb 2023

Los Angeles, CA

- Managed a 6-engineer team building [developer tools](#), serving APIs, and SDK infrastructure powering Snap Kit and Snap Games for 400+ enterprise partners.
- Architected an isolated local-server SDK bridge to securely bypass runtime platform restrictions, receiving personal recognition from the CEO for resolving critical launch blockers.
- Designed developer verification and content moderation systems featuring asset sandboxing, automated abuse reporting, and granular role-based access control.
- Built the core Canvas/SVG rendering engine for "Create Your Own" web tools and architected internal geospatial indexing engines for large-scale sponsored ad infrastructure.

Microsoft Xbox

Software Engineer - Xbox Live Compute

June 2013 – Feb 2015

Redmond, WA

- Built developer portal tools and CLI utilities used by external game studios to deploy server packages, provision cloud resources, and run remote diagnostics.
- Implemented real-time event ingestion and log-aggregation pipelines to monitor long-running server sessions and crash telemetry.

- Implemented the JSR-303 JavaBean data validation framework for client/server compilation in GWT 2.5 and wrote [the official documentation](#).

Education

University of North Carolina at Chapel Hill

MS & BS in Computer Science

May 2013

Chapel Hill, NC

Projects

DoodletronAI

iOS App (Swift)

- Built an [iOS app](#) that transforms children's drawings into expressive AI-generated video and audio, encouraging creativity.
- Orchestrated a pipeline of open-weight generative image, video, and audio models to render each drawing into an animated short.

[Sold] Keyboard and Mouse for Xbox Cloud Gaming

Browser Extension (TypeScript)

- Reverse-engineered the browser Gamepad API to intercept, translate, and simulate analog controller states from mouse and keyboard inputs
- [280,000+ active users](#) across Google Chrome and Microsoft Edge

MSW HTTP Middleware

JavaScript Library (TypeScript)

- Authored [official network interception middleware](#) for Mock Service Worker (4.7M downloads/month), enabling direct HTTP server mocking for testing complex developer workflows.

Saber Song Patcher

Windows Application (C#)

- Engineered an [audio file integrity and patching tool](#) using acoustic fingerprinting and cryptographic hashing to validate matching music tracks regardless of encoding format.