Will Ernst

Software Engineer & Founder | 8+ years building web & mobile applications and open-source libraries

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EXPERIENCE

Co-Founder, Founding Engineer
Triplit (YC W21)

2021 - Present

Triplit

An OSS realtime database + BaaS for local-first, realtime, and collaborative apps

- Accepted into Y Combinator (W21); providing realtime sync, conflict-free collaboration, offline capabilities, and spinner-free UIs for hundreds of apps across fintech, agtech, event management, and more; grew to over 2.8k+ GitHub stars and 4k+ weekly npm downloads
- Architected a delta-based CRDT sync engine with causal ordering and idempotent merges; delivered optimistic updates and conflict-free collaboration over WebSockets
- Designed a live-query subscription layer powered by incremental view maintenance that streams minimal diffs; cut bandwidth by ~95%
- Implemented a TypeScript query DSL with deep type inference (conditional types, distributive mapped types, complex generics); shipped IDE-grade autocomplete and compile-time safety that removed an entire class of runtime query errors
- Shipped framework SDKs providing live query hooks for popular frameworks (React, React Native, Svelte, Vue, Solid, Angular)
- Designed a Protobuf-like code-first schema evolution with safe forward/backward compatibility and zero-downtime migrations
- Built a managed cloud for multi-tenant deployments (provisioning, scaling, rollouts) on Cloudflare and Fly.io
- Ran our developer-first GTM: designing tutorials and examples, and managing our GitHub issues and Discord
- Co-founded and ran the company end-to-end with co-founder
- Stack: TypeScript, Node.js, SQLite, Websockets, Docker, Fly.io, Cloudflare Workers

Aspen Spaces

A group-centric messenger with built-in collaborative "mini-apps" like reminders, schedules, notes, photos, polls, and a few games

- Built the app from designs in Figma to code in React Native and architected a realtime sync system for optimistic and offline updates; used daily by hundreds of users before marketing the underlying technology as Triplit
- Stack: React Native, TypeScript, GraphQL, Elixir, Postgres

Aspen Browser

A "web browser for work" with an always-on dock, custom window manager, and shareable workspaces you could collaborate in

- Built an electron based web browser; scaled the product within the YC batch before pivoting to a new product

Software Engineer

2017 - 2020

Steadfast Financial - New York, NY

- Lead engineer at hedge fund for our proprietary web based research management system; partnered with the CTO to map analyst workflows, set the roadmap, and ship end-to-end full-stack features
- Architected and built the quant & data science platform; set the analytics stack roadmap, implemented it end-to-end, and standardized development for reproducibility and speed

Founder

2017

MOHO - Middlebury, VT

- Built and ran Middlebury's first service to connect students with off campus housing leads in the local community

SKILLS

Languages
JavaScript / TypeScript, Python, Elixir

Frameworks & Tools
React, React Native, Node.js, Docker, Postgres, SQLite

Expertise
Local-first and offline-first applications, Realtime collaboration, Conflict Free Replicated Data Type (CRDT) design, Advanced TypeScript modeling

EDUCATION

Middlebury College

2013 - 2017

Bachelor of Arts in Computer Science, Bachelor of Arts in Economics
Middlebury, VT

- GPA: 3.75
- Varsity Lacrosse, Captain

PROJECTS

RiffPad
https://riffpad.app
A local-first guitar tab editor that runs in the browser.

TD-Othello
https://github.com/wernst/td-othello
Othello playing AI, trained with reinforcement learning