Casey Haber

Senior Data Visualization Engineer · Platform-first libraries, product leadership

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SUMMARY

I'm a platform engineer with a decade of leading data visualization experiences — from research tools, to enterprise BI, to maintaining libraries that serve millions. Part product lead, part systems architect, mostly chart enthusiast.

CORE SKILLS

Visualization	D3.js, Vega & Vega-Lite, visx, Observable Plot, SVG, Canvas, WebGL (Three.js)
Languages / Frameworks	TypeScript, JavaScript, Python, React, SvelteKit, Redux, Node.js
Exploring	GenUI, WebAssembly, AI/ML tooling, DuckDB

EXPERIENCE

Lead Visualization Engineer · Atlassian — 2021 to Present

Lead a small team through multi-year platform development, partner closely with product and design, and set the technical direction for Atlassian's visualization surfaces while mentoring engineers as the team grows.

- Designed and built **@atlassian/viz-platform-charts** from the ground up. This is Atlassian's primary data visualization library, now serving **28+ engineering teams** and 4M MAU across products including Home dashboards ↗ and the new Forge UI ↗. Defined a novel slot-based React composition model that lets teams assemble custom chart experiences with minimal effort. I opened the library up to company-wide contribution through a structured contribution model and an AI-assisted authoring path. I turned a central library into a platform other teams can build on without breaking its architectural integrity.
- Tech-led the **table chart rebuild** (Atlassian Analytic's most-used chart) and the creation of custom mini-visualizations, shipping features like sparklines and auto-heatmaps that weren't possible under the legacy architecture. Migration announcement ↗
- Led the **Atlassian Analytics ↗ migration** from Chartio, including the move from SVG-rendered charts to modern **HTML dashboards** on a Redux-based component library (the foundational architectural shift that unlocked the current platform) while continuing to maintain and extend the underlying Vega-based visualization library that powers it.

Lead Visualization Engineer · Chartio — 2019 to 2021

Owned visualization end-to-end across a BI product serving thousands of customers, partnering with product, design, and customer-facing teams on launches, external content, and engineering interviews (acq. by Atlassian).

- Architected Chartio's **Vega-Lite-based visualization library**, designed the grammar layer, authoring experience, and chart catalog. Deep dive ↗ · Why Vega ↗
- Shipped new chart types including **sparklines** and an all-new chart catalog. Sparklines launch ↗ · New charts walkthrough ↗
- Built **How We Feel**, a public data viz project for pandemic user-generated data, in partnership with the How We Feel app. Project writeup ↗
- Featured in Chartio's Off the Charts engineer interview ↗ on approach to visualization engineering.

Data Visualization Scientist & Research Engineer · Two Six Labs — 2018 to 2019

Collaborated with researchers and engineers on applied visualization work, shaping research questions into shippable tools, presenting findings at conferences, and publishing peer-reviewed results.

- Co-authored **best-paper winner at VDA 2020**: *"A Visualization Tool for Analyzing the Suitability of Software Libraries via Their Code Repositories."* (Haber & Gove). Industry writeup ↗
- Inventor on US Patent 11,487,538 covering methods for analyzing code repositories.
- Designed and shipped Visualizing Programming Behaviors with Stack Overflow ↗, an interactive exploration of developer tag co-occurrence. Article ↗

Full Stack Engineer · University of San Francisco IT — Fall 2016, Summer 2017

- Built and maintained internal web applications for university operations.

Data Visualization Intern · Camus Group — Summer 2016

- Designed a **"Data Visualization 101" curriculum for EY** and produced data-storytelling deliverables for client engagements.

RESEARCH & PUBLICATIONS

- Haber, C. & Gove, R. *"A Visualization Tool for Analyzing the Suitability of Software Libraries via Their Code Repositories."* Visualization and Data Analysis 2020. **Best Paper Award.**
- Haber, C. (contributor). *"Do Defaults Matter? Evaluating the Effect of Defaults on User Preference for Multi-Class Scatterplots."* ACM / BELIV workshop. ACM DL ↗
- US Patent 11,487,538 — *methods for evaluating software libraries via repository analysis.* Google Patents ↗

EDUCATION

B.S. Computer Science, Minor in Design · University of San Francisco — Graduated 2018

- **Teaching Assistant** — Data Visualization (CS360), Assembly & CPU Design (CS315).
- **Research Assistant** — Data visualization research (multi-class scatterplot defaults, published at ACM BELIV) and African American Studies research.