Billy Ceskavich

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About

Over six years of experience building backend systems for web services and native applications. Over three years experience in senior roles leading technical projects and defining software engineering processes. Demonstrated success learning and working in various industry domains (media, video, ecommerce, and consumer applications) with a wide array of technologies.

Deep experience with Elixir, Ruby, JavaScript (client and server), and SQL. Intermediate knowledge of TypeScript, Erlang, and Python. Rusty knowledge of Go and Java. Also experienced with many modern tools and frameworks, including: backend web frameworks (Ruby on Rails, Phoenix and Ecto (for Elixir), Node.js); in-memory caches (Redis, Memcached); relational databases (PostgreSQL, MySQL); Elasticsearch; observability tooling (StatsD, Datadog, Splunk, Grafana).

Experience

Shopify

Worked on backend services and infrastructure for Shop App (package tracking and mobile shopping) and Shop Pay (digital wallet and checkout), with a focus on the user identity space. Used: Ruby on Rails, MySQL, Redis, Memcached, Kubernetes, and various custom infrastructure management tools built on top of GCP.

Senior Developer
New York City (Remote) / December 2020 – Present

- Built and maintained user authentication services for Shop Pay and Shop App. Designed and implemented improved observability (instrumentation, analytics, and alerting) for Shop Pay's SMS authentication service. Built email code authentication as a new means of authenticating into Shop Pay and Shop App.
- Served as tech lead for Shop's External Surfaces team, which focused on building a public developer platform for exposing Shop Pay as a payment provider for third-party checkouts. Led implementation and maintenance work that brought Shop Pay to Facebook Shopping and Instagram Shopping for both Shopify and non-Shopify merchants. Led onboarding work for Shop Pay on Buy on Google for Shopify merchants.
- Served on Shop's Black Friday / Cyber Monday readiness team for 2021, leading readiness work for user identity services for Shop Pay and Shop App. Prepared backend web services and infrastructure for sustained spikes in traffic up to 4x weekly peek load. Successfully maintained perfect service uptime for user identity services during this busiest of weekends.
- Currently, tech lead for a multiphase redesign of identity services for the Shop ecosystem to achieve the goal of a single user identity per person across Shop App and Shop Pay.
- Participated in on-call rotations. Responded to incidents 24/7 during shifts. Proposed changes to address previous outages and wrote playbooks for future on-call engineers. Paired with new engineers shadowing the on-call rotation.
- Served as peer onboarding partner for multiple new team members and became a regular mentor to one junior engineer. Helped define evolving engineering processes for a team that has grown over three-fold since joining.

Frame.io

Worked primarily on backend web services to power Frame.io's collaborative video management platform. Used: Elixir, Erlang/OTP, PostgreSQL (via AWS Aurora RDS), Kubernetes (via AWS EKS), AWS S3, AWS ECS, Elasticsearch, ORY Hydra, Memcached, React, and Redux.

Senior Backend Engineer
New York City / May 2019 – November 2020

- Led backend engineering efforts on multiple cross-functional teams to design and implement backend systems for high priority product features. Example projects: secure content sharing via Frame.io; first phase rewrite of Frame.io's memberships and permissions system.
- Successfully took ownership of underinvested backend services and led long running system refactors to completion. Example projects: S3 storage management tooling for media data; account usage tracking for Frame.io subscriptions; automated cache invalidation tooling.
- Led maintenance of Frame.io's proprietary pub/sub system, which is used to process up to 4,000 events per second in our event-driven API service. Used Distributed Erlang to horizontally scale the service across multiple Kubernetes Pods. Reworked event publishing to minimize and isolate spikes in latency during peak usage. Implemented comprehensive instrumentation and monitoring.
- Led backend engineering efforts on a cross-functional team coordinating a multiphase, zero downtime migration from Amazon ECS to Amazon EKS for our primary backend services.
- Frequently led backend engineering response to outages. Used deep domain knowledge to quickly identify incident resolution, wrote postmortems to diagnose root causes, and managed later work to improve resiliency.
- Regularly worked with Support Team colleagues to identify and resolve bugs. Frequently wrote documentation and authored new tools to enable Support Team members to better troubleshoot customer issues.
- Active contributor to the growth of the Backend Engineering Guild at Frame.io. Regularly interviewed candidates, ran onboarding for new team members, and participated in code review of our shared Elixir monorepo.

Senior Full-Stack Engineer
New York City / November 2018 – May 2019

- Built and maintained the core backend services for Frame.io's public developer platform. Exposed a subset of our internal API to the general public via OAuth and individual access tokens. Maintained an OAuth 2 compliant authorization system built with Phoenix and ORY Hydra. Migrated our custom webhook delivery service from Erlang Hackney to Elixir Mint to reduce intermittent dropped webhook requests to zero.
- Designed and built [Rolodex](), an open-source Elixir package for generating OpenAPI 3 compliant documentation for RESTful APIs built with Phoenix. Used within Frame.io to document all internal and public REST APIs.
- Built the Frame.io Developer website, a Gatsby.js web application used by all developer platform customers to manage their access credentials and custom extensions.
- Regularly worked with external clients to debug issues with extensions built on Frame.io's public API.
- Designed and implemented a system for external developers to share custom Frame.io extensions.

Vox Media

Worked across the stack to build features and services for Vox Media's CMS products. Used: Node.js, Ruby on Rails, Ractive, Vue, Elasticsearch, Redis, MySQL, and Fastly.

Full-Stack Engineer 1 & 2
New York City / February 2016 – October 2018

- Led engineering efforts on a custom search service for Vox Media's CMS. Work included building the frontend search UI, a parsing layer for a custom keyword search DSL, and an Elasticsearch index versioning system for managing zero downtime breaking changes to our search indices.
- Core team member that contributed to a rewrite of the editor application for Vox Media's CMS. Moved from a basic WYSIWYG tool to a multinent rich-text editor (think of a custom build of Google Docs). Owned many core features of the rewrite, designing and implementing both frontend and backend components. Spent significant time maintaining and extending this CMS's operational transformation platform, which was the base that enabled concurrent, conflict-free editing.
- Led a multiphase user authentication migration for Vox Media's CMS services while ensuring zero user downtime.
- Built command-line tooling for managing long-running data migrations for frequent changes to the Vox Media CMS's strict rich-text content schemas.
- Refactored Fastly edge caching for article page metadata tags to improve page load performance.
- Onboarded new team members, introducing them to Vox Media's CMS service architecture and data models.
- Mentored a software engineering intern in summers 2016 and 2018

Education

M.S. Information Management
Syracuse University / December 2015

B.S. Information Management & Technology
B.A. Political Science
Syracuse University / May 2014 (Summa Cum Laude)

Internships

Fall 2014 – Fall 2015 — **BITS Lab / Research Developer**
Summer 2015 — **Made by Many / Product Engineering**
Summer 2014 — **Twitter / Program Management**
Summer 2013 — **Evernote / Developer Relations**

Speaking & Events

NYC Elixir Meetup / Co-Organizer
New York City / March 2019 – December 2020

EMPEX 2019 / Speaker
"Is Elixir Just a Lisp? Metaprogramming in Elixir and Beyond"
New York City / May 2019