Ethan Stark

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HIGHLIGHTS

- 8 years of experience with JavaScript, Node.js, and React
- Built and scaled GovOS Cloud Search from greenfield to +1 million Active Monthly Users
- Automated 401k processing and reduced manual work of operations team by 40.6%

Skills

Backend: Node, PostgreSQL, JavaScript, TypeScript, GraphQL, Docker, AWS
Frontend: React, JavaScript, HTML, CSS, Jest, Redux

Experience

Independent Contractor – San Francisco, California / Remote   October 2022 – Present
Private Software Development Instructor

- Provide hands-on real-world instruction and apprenticeship to junior iOS, MacOS, and web developers.
- Guide students through the full lifecycle of building apps, from paper prototyping, Firebase and Postgres database schema design, automated Jest testing, TestFlight for beta testing, Heroku deployment, and AppStore publishing.
- Teach best practices when using git and GitHub for version control, pull requests, and collaboration.
- Student outcomes include breaking into the industry with a six-figure junior developer role.

Freelance Web Contractor

- Built and deployed an Airtable Order Management System for Pisgah Banjo Company's custom banjo order flow, enabling customers to receive automated email updates as their banjo is built, including in-progress photos.

Human Interest – San Francisco, California / Remote   February 2022 – October 2022
Senior Software Engineer I

- Designed system for automating the 401k contribution submissions for 120,000 of our clients using Typescript and Node.js, reducing the amount of manual submission work by operations team by 40.6%.
- Planned and executed incremental migration of functionality from the legacy monolith codebase to microservices, enabling our product to meet ambitious scaling goals.
- Built full-stack internal tooling, dashboards, and tables using React, Metabase, REST, and GraphQL endpoints, providing Operations staff with actionable insights on clients' 401ks.
- Onboarded, trained, and mentored new engineers on best practices and code quality standards.
- Audited, revised, and debugged the process documentation for local Docker developer setup, enabling new engineers to spin up their environments and hit the ground running.
- Provided shifts of 24/7 on-call triage and hot-fix engineering support with PagerDuty for a dozen production AWS microservices, ensuring high availability and customer satisfaction.
- Identified and corrected inefficient Postgres database queries using pganalyze.
- Developed a multi-level alert system by integrating PagerDuty, Datadog and Jira, designed to respond to application errors and unusual AWS service usage (CPU, memory, and database). This system informs on-call personnel as needed, and also auto-initiates Jira tickets for efficient issue tracking and resolution.
- Identified and debugged complex issues using Datadog queries, tracing the roundtrips of end-user actions across multiple services.

GovOS – San Francisco, California / Remote   July 2017 – February 2022
Senior Full Stack Engineer
- Built GovOS Cloud Search using a dozen Node.js microservices, and scaled it to +1 million Active Monthly Users.
- County records search engine used by hundreds of counties across the US, including Dallas. Check out how cattle brands are recorded in Texas by exploring the live deployed site! 🐮
- Lead engineer for our API Service, the central multi-protocol Node.js hub for all microservices.
- Engineered responsive React UIs featuring Web Socket connections to the backend to deliver rapid, up-to-date updates for the user.
- Employed RabbitMQ messaging to allow multiple backend microservices to respond to important events
- Designed secure authentication system using JWTs to protect sensitive documents. Our application has experienced zero data breach events in its five years in production.
- Developed a Configuration Service and a client NPM module that enabled hundreds of parameters to be customized for different counties' document attributes and functionality requirements.
- Incorporated ElasticSearch for our Search Service to query millions of documents in seconds.
- Built customer support portal micro frontend with React to allow support staff to correct orders, reset passwords, issue refunds, adjust user settings, and manage user roles and permissions.
- Integrated Stripe, enabling users to easily purchase documents and securely store payment information.
- Designed and built reusable Document Preview React component shared by three of our front-end services.
- Document Preview features include redacted documents, zoom, express checkout, linked documents, and OCR text highlighting.
- Crafted reusable, customizable React Receipt component, used across our three frond-ends. Empowered other developers to easily prototype changes using React Cosmos sandbox, including visual regression automated tests.
- Architected a complex, extensible e-commerce checkout handler with JavaScript that handles cart checkouts, express checkouts, recurring subscription payments, prorations, and refunds.
- Expanded GovOS revenue by implementing the ability to purchase certified documents.
- Minimized bugs and regressions by building extensive suites of unit tests (Jest, Mocha, Chai), integration tests (Docker), and E2E tests (TestCafe).
- Managed deployments across test, dev, and production environments with Jenkins and Google Cloud Platform (GCP).
- Coordinated with frontend and backend teams to design and adjust API contracts, which are then published as a private NPM package, shared among microservices, and enforced via JSON Schema.

Learners Guild – Oakland, California   July 2016 – July 2017
Full Stack Engineer
- Lead teams of junior devs building and maintaining the following projects at Learners Guild:
  Coach Queue
    - Node + React application that allows junior developers to request help from coaches in real-time.
    - Designed PostgreSQL database schema, DB migrations with Knex, and tests with Mocha.
  Trossello
    - Open source clone of Trello.com. SPA React + JavaScript app to organize projects with lists and cards.
    - Wrote Chai test suites for Express API routes, database methods, and user authentication.

Freelance Web Developer – Oakland, California   January 2015 – July 2017
- Designed the backend, database, and SQL schema for Strive Messaging's SMS campaign organizing tool.
- Built proof-of-concept React frontend for Inbox AI featuring interactive JavaScript charts and graphs.

Education

University of Minnesota, Minneapolis, Minnesota   September 2004
BA in Psychology   Graduated December 2007