Matthew Sisserson

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PROFILE

I'm a full stack software engineer with 3 years of experience in JavaScript, Ruby, and a variety of services. My passion for computer engineering drew me away from my former work in Biochemistry, but I leverage the critical thinking skills I developed there everyday. Most recently, I created Otto, an open-source automated ETL workflow manager built with Express.js, React, and PostgreSQL. On the side, I am currently working on a team scheduling app to meet a friend's administrative needs.

SKILLS

Backend	Frontend	Other
Ruby, Node.js, Express, Go, Python, PostgreSQL, MongoDB, RESTful APIs	TypeScript, React, HTML/CSS, jQuery, MaterialUI, Jest	AWS, Docker, Git, Linux, Bash, DigitalOcean, Heroku

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EXPERIENCE

Creator, Software Engineer, *Otto - www.otto-etl.com* 🔗   2023

Otto is an open-source, web-based, automated ETL workflow manager capable of extracting 200K+ PostgreSQL database rows, transforming that data, and loading it at scheduled intervals.

- Generated a recursive workflow execution algorithm enabling parallel task executions and increasing a workflow's maximum nodes from 5 to 30+
- Implemented real-time workflow execution log and metric streaming to the UI via server-sent events, empowering users to diagnose workflow failures and bottlenecks
- Built a drag-and-drop node-based user interface using React, React Flow and Material UI that allows users to design workflows by creating, connecting and deleting nodes
- Enabled users to join and transform extracted data by constructing a system for acquiring and executing arbitrary user code against multiple sources of data using Node.js VM and Code Mirror 6
- Containerized application using Docker which allowed installation without setting up databases and environment variables, achieving an 70% reduction in installation and configuration time
- Developed an execution scheduler using Node-Cron that automatically runs workflows at specific intervals and reschedules executions in the event of a network fault or server restart
- Orchestrated a data management system for staging workflow data as it passed through extraction, transformation, and loading steps
- Wrote REST API endpoints that perform CRUD operations on workflow, execution, and metrics resources
- Led stand ups, sprint planning sessions and weekly retrospectives for a four-person remote team
- Authored a comprehensive case study and gave a tech talk on the creation and design of Otto

Software Engineer, *Self-employed*   2020 − 2023

A few of the projects & technologies used during this time:

- QuestBin - an application for receiving & debugging webhooks (Express, React, Nginx, DigitalOcean Droplet, PM2)
- Daily - a todo tracking application (Ruby, Sinatra)
- Binge - a database-backed e-commerce app (React, MongoDB, Node)

Laboratory Technician, *Hiram College*   2015 − 2019

- Developed a custom filter holder and black box which increased spectrophotometer effectiveness by 250% and saved the lab $20,000 in equipment expenses

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EDUCATION

B.A., Biochemistry, *Hiram College*   2015 − 2019