Joe Webster, Software Engineer

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Experience

Creator & Software Engineer, Otto (*www.otto-etl.com*) - Remote   2023

Otto is an open-source, web-based, and automated ETL (extract, transform, load) pipeline tool that extracts business data from multiple sources, transforms the data, and loads the results into a target database

- Designed a recursive algorithm using JavaScript promises and memoization that enabled the execution of parallel tasks and increased a workflow's maximum nodes by over 600%
- Implemented real-time execution log streaming from the backend to the frontend via server-sent events, which empowers users to diagnose workflow failures and bottlenecks
- Designed and built the user interface using React, React Flow and Material UI that allows users to design workflows by creating, connecting and deleting nodes
- Constructed a system that allows users to transform multiple sources of extracted data by submitting their own arbitrary custom JavaScript code to the backend using the CodeMirror code editor and Node.js VM
- Developed a workflow execution scheduler using Node-Cron that automatically runs workflows at specific intervals and reschedules future executions in the event of a network fault or server restart
- Developed a Node.js/Express backend that orchestrates the scheduling, validation, execution, error handling, and monitoring of workflow nodes
- Containerized the application using Docker, eliminating the need to set up databases/environment variables and resulting in a 50% reduction in installation and configuration time

Software Engineer, Self-Employed - Boston, MA   2020 - 2023

- QuestBin - An app to collect and debug webhooks (Express, React, Nginx, Digital Ocean Droplet, PM2)
- Circuit Shop - An e-commerce app for tech and digital products (React, Express, MongoDB)

Front-End Developer, Alignable - Boston, MA   2013 - 2014

- Implemented user-friendly user interface using HTML, CSS, JavaScript and responsive design techniques
- Converted user onboarding flow from a fixed-width to responsive layout, increasing conversions by 15%

Front-End Developer, GrabCAD - Boston, MA   2012 - 2013

- Partnered with designers to translate mockups into pixel-perfect code using HTML, CSS and JavaScript

Skills

- **Languages:** JavaScript (ES6), TypeScript, Ruby, SQL, HTML, CSS
- **Technologies:** React, Node.js, Express, Next.js, Postgres, MongoDB, Tailwind CSS, Jest, HTTP, REST
- **Other:** API Design, Git, Github, Figma

Education

Vanderbilt University - Nashville, TN   2010

- Bachelor of Arts in Political Science