

Jing Zhu

Software Engineer

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🔄 JingZhu89

PROFILE

I'm a full-stack software engineer with a passion for learning new things and solving problems. I have experience building applications using **JavaScript, Ruby, TypeScript and C#** and I'm always curious about new technologies. I love to play games with friends and develop new games/game apps in my spare time. Beyond the screen, I'm a hiker who loves to spend time in nature.

SKILLS

Languages and Framework

JavaScript, TypeScript,
Node.js, Express, React/Redux,
Ruby, Sinatra, C#, Golang,
Python, Jest, Cypress

Cloud

AWS(Lambda, RDS, S3),
Heroku, DigitalOcean

Other Technologies

PostgreSQL, MySQL,
MongoDB, Linux, HTTP,
OOP, REST APIs, Git/GitHub,
Docker, Nginx, HTML/CSS,
Tableau, PowerBI

PROFESSIONAL EXPERIENCE

Creator, Software Engineer

2023

Otto <https://www.otto-etl.com> 🌐

Designed, prototyped and implemented Otto, an open-source, ETL workflow automation tool for scheduling, executing and monitoring of ETL data pipelines (**JavaScript, React, Node.js, MongoDB, PostgreSQL, S3**)

- Wrote a recursive algorithm that orchestrates parallel execution of tasks which increases number of nodes in a workflow from 4 to 30+
- Developed an execution scheduler using **Node-Cron** that automatically runs workflows using cron jobs and restarts cron jobs in the event of server restart
- Constructed a system for acquiring and executing arbitrary user code against multiple sources of data using **Node-VM** which allows users to join and transform data with their own code
- Built a modularized backend that is capable of adding new integrations with minimum changes to existing code base which enables rapid continuous development
- Created metrics and logging for execution history that streams to the frontend in real-time using server-sent events empowering users to diagnose workflow failures and bottlenecks
- Developed an intuitive React frontend using **React Flow** that enables users to create workflow in a drag-and-drop manner
- Containerized Otto using **Docker** which allows installation without setting up databases and environment variables, achieving an 80% reduction in installation and configuration time
- Collaborated with a remote team of 4 engineers using an agile workflow. Designed the structure of the backend and led the development of several key components such as the parallel execution algorithm, **S3** integration and so on
- Authored Otto's comprehensive technical case study 🌐

Software Engineer

2021 – 2023

Self-employed


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

- MessageBin: a real-time application for receiving & debugging webhooks (**WebSocket, Nginx, DigitalOcean Droplet, PM2**)
- eBucket: a database-backed e-commerce app (**React, MongoDB, Node.js**)

- Chew Chew Runs: An endless runner game that features continuous procedural generation of assets such as scenes, obstacles and power-ups (**C#**, **Unity Engine**)

Senior Manager, Drug Sourcing Risk Analytics

2016 – 2021

Cigna (Express Scripts) 

- Worked with a team of software engineers, designed and implemented a web-based risk management tool that analyzes supply chain risks
- The risk tool facilitated the procurement process for 9% of the US generic pharmaceutical market
- Created and maintained the risk **MySQL** databases, performed ETL tasks for risk data pipelines
- Created predictive analytical models for supply disruptions (**Python**)

EDUCATION

Masters of Science in Supply Chain Management

2015 – 2016

Washington University in St. Louis

Bachelor of Finance and Operations Management

2008 – 2012

Singapore Management University