Christopher Brum

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PROFILE

I'm a full-stack software engineer experienced with JavaScript, TypeScript, Ruby, Node, Go, React, Postgres, MongoDB, Docker, and a variety of AWS services. Most recently I built Twine 🔗 , a drop-in real-time service.

PROFESSIONAL EXPERIENCE

Software Engineer   09/2023 – present
Twine (twine-realtime.github.io) 🔗
A scalable drop-in real-time service that provides connection state recovery.
- Architected and constructed a drop-in auto-scaling WebSocket infrastructure using various AWS services (EC2, DynamoDB, Elasticache for Redis, Elastic Beanstalk).
- Built a Node.js backend REST API to facilitate communication with the Twine Server and persist received data in DynamoDB and Redis.
- Constructed a decoupled Redis pub/sub mechanism for sending data received from backend servers out to clients via a WebSocket connection.
- Implemented automatic connection state recovery mechanisms that provide in-order delivery of missed data and mitigate client disruption in the case of a dropped WebSocket connection.
- Developed cron job logic to automate the removal of stale data from Redis.
- Containerized server code in a Docker container for deployment.
- Collaborated remotely with an international team of four engineers across three time zones using agile workflow.
- Authored a technical case study providing an in-depth analysis of Twine's problem domain, system design, and engineering decisions readable at https://twine-realtime.github.io/#four 🔗 .

Teaching Assistant   2022 – 2023
Launch School
- Conducted ~200 live-coding interviews & provided actionable feedback to students.
- Evaluated students' programming fundamentals by grading 120+ written exams.
- Performed code reviews on student projects, addressing bugs, syntax, and structure.
- Developed multiple written assessments for the Launch School curriculum.

Software Engineer   2021 – 2023
Self-Employed
Developed various open-source web applications:
- *Request Inspect* - A web service for inspecting Webhooks (DO droplet, NGINX, MongoDB, Express, React)
- *Voter Search* - A web app for searching/sorting voter data (Rails, PostgreSQL, React)
- *Plantasia* - A message board for plant enthusiasts (Sinatra, PostgreSQL, HTML/CSS)
- *Two-Wheeled Buy & Sell* - A marketplace for motorcycles (Rails, React, PostgreSQL)

SKILLS

Back End	Front End	Cloud	Other
Node.js, TypeScript, Go, Ruby, Express, SQL, PostgreSQL, MongoDB, RESTful APIs	JavaScript/Typescript, React, Handlebars, HTML/CSS	MongoDB Atlas, AWS (DynamoDB, Elasticache for Redis, EC2, ALB, ELB), Digital Ocean	Git/Github, Docker, OOP, Nginx, VSCode, Redis, Jest, Webhooks, WebSockets, Bash/Zsh

EDUCATION

Launch School   2021 – 2023
A multi-year mastery-based software engineering school emphasizing fundamentals.   Remote

Bogotá Bootcamp   2020 – 2020
Web development bootcamp utilizing Ruby, Rails, JavaScript, & ReactJS.   Colombia