

Derek Bruinooge

Software Engineer

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Experience

2023 – present
Remote, US

Creator, Software Engineer, *Symphony*

Created Symphony: a cloud-native, open-source framework for adding real-time collaboration functionality to web applications

- Engineered a WebSocket backend deployed to AWS services including ECS, S3, RDS for PostgreSQL, ElastiCache for Redis, and DynamoDB
- Designed, built, and containerized a custom scalable load-testing tool
- Increased the capacity of the backend infrastructure by more than 40x from 240 to 10,000+ concurrent users by designing and implementing a Redis publisher/subscriber solution to horizontally scale WebSocket servers
- Automated the deployment, configuration, and management of over 100 cloud infrastructure resources by building a CLI tool leveraging the AWS CDK and SDK libraries
- Built and published an NPM package with a client library that enables web applications to connect seamlessly to the Symphony backend
- Authored a case study on Symphony's engineering decisions and tradeoffs: <https://symphony-framework.github.io> 📄
- Collaborated closely with an international team of 4 engineers based in the US and UK

2021 – 2023
Remote, US

Software Engineer, *Self-employed*

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

- Terminal - A real-time application for receiving & debugging webhooks (Express, Next.js, WebSocket, Nginx, PostgreSQL, MongoDB, RabbitMQ)
- Procrasti-not - An application for tracking todos (Ruby, Sinatra, ERB, PostgreSQL)

2015 – 2022
Seoul, South Korea

Editor, *Bank of Korea*

- Edited English-language materials, including published reports and press releases

Technical Skills

Back-end

Node.js, Express, Ruby, Sinatra, Go, PostgreSQL, MongoDB, RESTful APIs

Front-end

JavaScript, TypeScript, React/Redux, Next.js, Tailwind, HTML/CSS

Tooling

Git/GitHub, Docker, Nginx, Linux, Bash, DO Droplets, Heroku, AWS, Agile workflow

Certifications

AWS Solutions Architect - Associate (SAA-C03) • **Attorney (Michigan Bar Association)**

Education

J.D., *University of Chicago Law School*

B.A., Philosophy, *Western Michigan University*