


Chris Shen Software Developer

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I am a full-stack software developer with a background in product management. I have multiple years of experience working with JavaScript, Ruby, Go and AWS services. I am also a co-creator of Otter , an open-source cloud native framework for peer-to-peer video communication within web applications.

Technical Experience

Co-Creator, Software Developer, Otter

2023/01 – present
Toronto & SF Bay Area

Otter is an open-source, cloud native framework for peer-to-peer video communication within web applications.

- Designed, prototyped and built a cloud native framework that utilizes multiple AWS services (API Gateways, Lambda, ECS on Fargate, DynamoDB, CloudFront & S3)
- Implemented critical WebRTC components (Signaling, STUN/TURN) on a serverless architecture that prioritizes low maintenance and scalability (Lambda, Docker)
- Developed a CLI tool that streamlines the deployment and teardown of AWS infrastructure components (AWS SDK, CloudFormation, oclif, TypeScript)
- Constructed a scalable API server that allows developers to integrate Otter into existing applications (Lambda, AWS SAM, TypeScript)
- Secured API Gateways with API Key authentication & JWTs (JSON Web Tokens)
- Crafted a web application that supports 1-to-1 audio/video calling, messaging, and file sharing (WebSocket, WebRTC, React, Tailwind)
- Authored a comprehensive technical case study  on Otter's design decisions and engineering challenges

Software Developer, Self-employed

2021/10 – 2022/12

Personal projects during this time:

- ReAck: a real-time webhook debugging tool with custom endpoints. Built with React, Node.js + Express, WebSocket, PostgreSQL and MongoDB
- NoSpoil: a minimal household inventory management application built with Ruby, Sinatra, PostgreSQL, MongoDB and Bootstrap
- Later: a todo app built with Ruby, Sinatra, HTML & CSS

Product Manager, Baidu Inc.

2015/04 – 2018/10
Beijing, China

Collaborated with a team of 6 developers in an Agile environment with an average sprint length of 4 weeks. Delivered two internal web applications aiming for boosting sales team's performance and efficiency. Key features include:

- A dashboard providing customer and market insight for SME sales
- Personalized, more detailed customer data report for KA sales upon request
- A product recommendation service based on customer interactive metrics

Skills

Backend

Ruby, TypeScript, Go, Node.js, Express, PostgreSQL, MongoDB, WebRTC, RESTful APIs

Frontend

Javascript, React/Redux, Tailwindcss, Bootstrap, WebRTC API, HTML/CSS

AWS services

HTTP/WebSocket API Gateways, Lambda, CloudFormation, EC2, ECS, Fargate, DynamoDB, CloudFront, S3

Tooling

AWS SDK, AWS SAM, Docker, Git/Github, Nginx, Caddy

Education

Master of Business Administration, Renmin University of China

2015 – 2018

BA Medical Sciences, Peking University

2006 – 2011