

Huizhirong (Jason) Guo

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EDUCATION

Northeastern University

Oakland, CA

Master of Science in Computer Science, GPA: 4.0/4.0

Sep 2024 - Dec 2026 (Expected)

Coursework: Distributed Systems, Algorithm Design, Software Engineering, Database Systems, Cloud Computing

Santa Clara University

Santa Clara, CA

Bachelor of Science in Computer Science and Mathematics

Sep 2020 - Jun 2024

SKILLS

Languages: Python, JavaScript/TypeScript, Go, C++, Java

Frameworks: React, Django, Angular, Gin, Next.js, Node.js, Express, SpringBoot,

Databases & Tools: MongoDB, PostgreSQL, MySQL, Redis, Git, Docker

Cloud & DevOps: AWS (S3, Lambda, DynamoDB CloudWatch), GitLab, Jenkins, Vercel

Technologies: Microservices, RESTful APIs, WebSocket, JWT

WORK EXPERIENCES

Next Play Games Inc. (start up)

Remote

Software Engineer Intern

Sep 2025 - Present

- Developing interactive sports applications using React/TypeScript for web and React Native for iOS/Android, including SpotLingo (educational app teaching sports rules to children) and real-time prediction platform for live baseball games.
- Building Go(Gin) backend services with WebSocket support for live updates and real-time synchronization across 20+ concurrent sessions with **sub-200ms latency and 99.9% message delivery rate**.
- Implementing feature modules based on Figma UI designs with Supabase integration, supporting user management, private group creation, and automated scoring systems with real-time calculations and progress tracking.
- Optimizing mobile app performance for smooth UI rendering and responsive interactions during high-activity usage; integrated RevenueCat for cross-platform subscription management and in-app purchases.

Beijing Gesafe WEALTH Advisory Co., Ltd.

Beijing, China

Backend Engineer Intern

Jun 2025 - Aug 2025

- Developed internal workflow automation tools with Django REST framework, **reducing manual processing time by 35%** and automating daily recurring tasks including report generation, data validation, and email notifications.
- Built RESTful APIs with Flask and MongoDB, implementing pagination and query optimization for sub-200ms response times across core business endpoints while handling complex aggregation pipelines for financial data.
- Designed MySQL database schema with proper indexing strategies, **improving report generation speed by 60%** and reducing query execution time from 8 seconds to 3 seconds for complex analytical queries.
- Collaborated with cross-functional teams to deliver payment integration, automated reporting, and user dashboard features throughout the internship, participating in daily stand-ups and code reviews.

PROJECTS

Makeform.ai — React, Next.js

- Leveraged Cursor AI-assisted coding tool to efficiently build platform with modern design patterns like Shaden/ui.
- Created comprehensive documentation site using Nextra and MDX, significantly improving user onboarding experience.
- Implemented SEO optimization strategies **resulting in 80% increase** in organic traffic within first month of deployment.
- Built reusable component library with extensive form elements, streamlining development process for new features.

Go ChatRoom — Go, Gin, Redis

- Built WebSocket-based chat server supporting real-time messaging with sub-50ms delivery latency.
- Implemented Redis caching **reducing database queries by 70%** and enabling horizontal scaling across instances.
- Integrated Kafka message queue **processing 1K+ messages/second** with zero message loss during peak usage.
- Developed WebRTC video calling feature with adaptive bitrate streaming for various network conditions.

AI Cloud Account System — Java, SpringBoot

- Implemented Spring Security with JWT authentication **handling 10K+ daily user sessions with 99.9% uptime**.
- Designed asynchronous task processing using Spring @Async and CompletableFuture, reducing reconciliation time from 5 minutes to 30 seconds while processing multiple financial transactions in parallel.
- Built real-time notification system with Server-Sent Events supporting **500+ concurrent connections** for live financial updates, implementing automatic reconnection and message queuing for offline users.
- Integrated Redis distributed locks with Redisson ensuring data consistency across 5-node cluster with zero deadlock incidents, implementing retry logic and timeout mechanisms for critical sections.