

# HONGJIN QUAN

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## EDUCATION

Cornell Tech (Cornell University), New York, NY

August 2023 - May 2025

*Jacobs Technion-Cornell Dual Master of Science Degrees – Information Technology* | Merit Scholarship

Coursework: Data Structure and Algorithm, HCI design, Applied Machine Learning, Building Startup Systems

Technion - Israel Institute of Technology

August 2019 - August 2023

*Bachelor of Science in Chemical Engineering* | GPA: 3.8

## TECHNICAL SKILLS

**Coding Languages:** Golang, Python, Java, JavaScript, TypeScript, HTML/CSS, MySQL

**Operating Systems:** Windows, UNIX, Linux

**Other Tools:** React.js, Next.js, Node.js, Express.js, SpringBoot, Redis, Docker AWS, MongoDB, MySQL, PostgreSQL, Git, Jira, Figma

## EXPERIENCE

[Weill Cornell Medicine](#) | React Native, Node.js/Express.js, MongoDB, Jira, Figma

December 2023 - Present

Software Development Intern

New York

- Developed a mobile application “Attuned” that offers LGBTQ+ users voice training lessons using **Agile Scrum** with **Jira**, leveraging **React Native** for cross-platform functionality.
- Led a major redesign project for the application using **Figma**, focusing on UI/UX enhancing user experience and visual appeal, resulting in a **40% increase** in user engagement and a significant reduction in customer support inquiries.
- Engineered a robust backend infrastructure using **Node.js** and **Express.js**, ensuring scalable, fast-response services for a seamless user experience.
- Implemented a **MongoDB** database schema to efficiently manage user data, lesson progress, and personalized feedback, contributing to a highly customized user journey.

[Scholarship Auditions](#) | React, RESTful API, PostgreSQL, AWS RDS

September 2023 – December 2023

Full Stack Development Intern

New York (Remote)

- Led the development of the "AmericanBandDad" website from scratch, a platform designed to seamlessly integrate a quiz app, two web games, and music podcasts for American Dads.
- Built the website's front-end using **React** for Parallax Homepage, interactive Quiz App, webpage Games, and Newsletter Signup Form.
- Leveraged multiple **RESTful APIs** to fetch data for quiz questions and podcast resources and used **Redux** to update user information and quiz scores.
- Built **PostgreSQL** database with podcast, music, and score tables then participated in deploying it via **AWS RDS**.

## PROJECT

[GeeCache](#) | Golang, Consistent Hashing, HTTP Communication, LRU Cache, Protocol Buffers

A standalone and HTTP-based distributed caching system

- Implemented the **Least Recently Used (LRU)** algorithm to optimize cache storage by automatically discarding the least accessed items, enhancing system performance and resource utilization.
- Engineered a robust lock mechanism in **Go** to safeguard against cache penetration, significantly increasing system reliability and stability under high-load conditions.
- Applied **consistent hashing** for node selection within the **Distributed System**, ensuring effective load balancing and improving scalability and fault tolerance.
- Integrated **Protocol Buffers** for node communication, optimizing binary data exchange to reduce latency and bandwidth usage, resulting in faster response times and improved overall efficiency.

[ChatGPT AI Assistant](#) | Java, SpringBoot, MySQL, MyBatis, Docker

A ChatGPT-powered Q&A platform to address questions with Knowledge Planet, public WeChat

- Applied DDD for efficient modularization and decoupling, facilitating ease of maintenance and future project scalability.
- Integrated **ChatGPT API** into a web Q&A system, enabling automated, intelligent responses to user inquiries.
- Enhanced automated task scanning for efficient data collection and response delivery, streamlining user interaction.
- Managed version control and feature branching with **Git**, supporting structured development and collaborative workflows.
- Deployed using **Docker**, achieving streamlined project deployment and management within a containerized environment.