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:	SpringBoot, Redis, MySQL, Docker, React.js, Next.js, Node.js, Express, Tailwind CSS, AWS, MongoDB, PostgreSQL, Git

EXPERIENCE

Weill Cornell Medicine | Jira, Node.js, MongoDB, HTML/CSS/JavaScript, SwiftUI   December 2023 - Present
Software Development Intern   New York
- Use **Scrum** in **Jira** collaboratively developed an IOS application to offer LGBTQ+ users free voice training lessons.
- Led a major redesign project for the application using **HTML/CSS/JavaScript**, focusing on enhancing user experience and visual appeal with **Figma**, resulting in a **40% increase** in user engagement and a significant reduction in customer support inquiries.
- Designed and managed features such as User Profiles, Lesson Offerings, and customizable Notifications, contributing to a versatile and dynamic user experience.
- Optimized backend **Node.js** APIs that improved performance and reliability by **70% faster,** ensuring efficient data handling and seamless integration with the **MongoDB** database.

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, Distributed Caching, HTTP, **LRU Cache, Protocol Buffers**
A standalone and HTTP-based distributed caching system, utilizing Go for efficient cache management and network communication.

- 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.