

Jiayuan (Jerry) Hong

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217-200-0555

EDUCATION

University of Illinois Urbana Champaign

M.S. in Computer Science

GPA: 4.0/4.0

Expected May 2025

University of Illinois Urbana Champaign

B.S. in Computer Science and Mathematics

GPA: 3.8/4.0

Graduated May 2023

SKILLS

- **Languages:** JavaScript/TypeScript, Java, Python, C/C++, Go, Matlab, Ocaml, Clojure
- **Tools:** Spring Boot, REST API, GCP, Docker, AWS, Kafka, Redis, MySQL, MongoDB, BigQuery
- **Web Development:** React/React Native, Node.js, Vue.js, Next.js, Express.js, TailwindCSS

PROFESSIONAL EXPERIENCE

CME Group

Chicago, IL

Software Engineer Intern, Architecture and Product Management

May 2023 - Aug 2023

- Designed a high volatility trading algorithm that detected spikes and trend breakers with 95% accuracy.
- Developed a configurable middleware using Kafka and Pub/Sub to seamlessly transfer messages between systems and standardize information sharing across platforms, leading to a 40% increase in data transferring.
- Created a reliable and efficient JSON Schema 7 Bundler to recursively combine multiple schemas and present options to store documents and serialized objects, improving the validation process by 17%.

University of Illinois

Urbana, IL

Course Assistant, Computer Science Department

Jan 2023 - May 2023

- Designed homework assignments and used MySQL to write queries to check and evaluate students' answers.
- Conducted weekly office hours to assist students one-on-one and provide guidance to debug their code effectively.

Zhejiang Uniview Technologies

Xian, China

Software Engineer Intern, Java Backend Team

Jan 2021 - Mar 2021

- Implemented Uniview Cloud Service, handling 10,000+ IP video surveillance devices, ensuring 99.9% uptime, and achieving 30% faster system response with Eureka, Redis, and distributed systems.
- Boosted system reliability with automated asynchronous login for offline devices in poor networks, reducing downtime by 30% and increasing overall stability by 25%.
- Designed an optimized heartbeat packet in the application layer, reducing server-client communication latency by 30% and achieving a 99.9% uptime for the system, ensuring a stable and robust user experience.

PROJECTS EXPERIENCE

Apartment Rental App

Sep 2022 - Dec 2022

<https://github.com/Einsgates/ApartmentRental>

- Optimized Node.js backend, achieving 25% faster API response time and processing 10,000+ daily property information requests via Zillow API for improved user experience and platform performance.
- Developed React.js frontend with optimized Google Map and Keyword Search, resulting in 30% faster response times, 20% higher user engagement, and 15% increased app downloads
- Optimized user-interaction functions with MongoDB, storing 50,000+ property records.

WechAt: A Chatting and Selling Products App

May 2022 - Oct 2022

<https://github.com/Einsgates/WechAt>

- Developed a Full-stack platform and utilized Google Cloud for MySQL and Node.js to implement the backend functions, including advanced queries like Transactions and Procedures for complex functionalities.
- Implemented the frontend using Vue.js, including pages like login, account, product, post, and chat sessions.

Your Videos App

Feb 2022 - August 2022

<https://github.com/Einsgates/YourVideos>

- Created a video app that includes **Google Authentication** and supports uploading, publishing, commenting, liking, and filtering videos by categories.
- Used **Next.js** including file-based routing and data using server-side rendering and static generation.
- Managed the database using the unified content platform **Sanity Backend** and React for frontend.