

Qianhui Long

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EDUCATION

Carnegie Mellon University - Information Networking Institute Pittsburgh, PA
Master of Science in Information Networking Aug 2024 - Dec 2025 (Expected)

Coursework: Introduction to Computer Systems, Cloud Infrastructure and Services, Fundamentals of Telecommunications Networks

Wuhan University - School of Computer Science Wuhan, CN
Bachelor of Engineering in Software Engineering | GPA: 3.9 / 4.0 (Top 10%) Sep 2020 - Jun 2024

Coursework: Data Structure, Computer Networks, Operating Systems, Database Systems, Object-Oriented Programming, Mobile Programming, JavaEE Architecture Programming, Cloud Computing Platform and Technology

Honors: Outstanding Graduate of Wuhan University; Outstanding Student Cadre of Wuhan University

EXPERIENCE

Beijing Hi-tech Cloud Education Technology Co., Ltd Beijing, CN
Software Engineer Intern Jun 2023 - Jul 2023

- Contributed to **back-end** development for a comprehensive system analyzing underwater structures, effectively serving over 1,000 personnel within the department
- Collaborated with algorithm teams to integrate modules for image, model, and point cloud processing, ensuring seamless communication between front-end components and core computational algorithms
- Utilized **Spring Boot** and **Node.js** to develop RESTful APIs supporting various functionalities, including project management, runtime parameter configuration, and 3D data generation.
- Optimized database performance using **MySQL**, implementing efficient indexing and query strategies that improved data retrieval speed by 30% and supported a 25% increase in concurrent users

PROJECTS

AI Speech Assistant |  Jan 2024 - Apr 2024

- Independently managed the end-to-end development of an **iOS** application, covering user requirement analysis, framework design, implementation, and testing, culminating in a successful App Store launch with a 5.0-star rating.
- Built a front end with **SwiftUI**, seamlessly integrating third-party APIs for language generation, speech processing, and translation, including Microsoft Azure, Minimax, and Youdao, to deliver an intuitive and engaging user experience.
- Developed a stable backend in **Java**, enhancing database scalability and performance by integrating **MyBatis** with **MySQL** for SQL operations optimization and reducing query execution time by 25%

TOURMATE - Data-driven Tourism Service System |   Apr 2023 - Jun 2023

- Led a team of 5 in developing a **web system** that offered customized tourism planning solutions
- Implemented a recommendation model leveraging the **PaddlePaddle** deep learning framework, enhancing accuracy of personalized attractions displayed on homepage through analysis of over 10,000 user and attraction data points.
- Leveraged ant colony optimization to devise personalized travel itineraries aligned with user preferences and geographic data
- Deployed algorithms into the backend and developed **RESTful APIs**, enhancing the delivery speed of personalized itinerary recommendations by 12%.

Urban Management Emergency Command and Dispatch System Mar 2022 - Jul 2022

- Engaged in **full-stack** development of the system, featuring functionalities including emergency map visualization, event reporting and assignment, duty scheduling, and command dissemination
- Developed the system interface using **Vue.js** and **Element UI**, incorporating MiniMap to enable interactive city-wide event displays and seamless module navigation
- Built back-end architecture using **Spring Boot** with role-based access control and robust user authentication, incorporating **Redis** caching to ensure timely notification delivery during emergencies

NetCapture - Infectious Disease Tracing System Jun 2022 - Aug 2022

- Served as the lead developer for the front-end infrastructure of a disease tracing web system using **Vue.js**, facilitating effective infectious disease control for the medical department
- Solely designed and implemented an infection propagation visualization graph using **Apache ECharts**, providing a comprehensive overview of infection trends
- Integrated the **Amap API** into the framework to enhance patient location tracking and regional disease control efforts

SKILLS

Programming: Java, C/C++, Swift, Python, JavaScript, HTML/CSS, SQL

Framework & Tools: SwiftUI, Vue.js, Node.js, SpringBoot, Maven, MyBatis, Git

Cloud & Databases: MySQL, Redis, Docker, Hadoop, Spark, Terraform, Google Cloud Platform