

HEJIE ZHANG

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JAVA SOFTWARE ENGINEER

Skilled Software Engineer with over 3 years of experience in developing enterprise applications. Specialized in building robust and scalable backend systems using Java and Spring Boot, with hands-on involvement in analyzing client requirements, designing system components, implementing business logic, testing, and deploying solutions. Skilled in enhancing product performance and maintainability through clean code practices and collaborative development. Hands-on skill in back-end design and system architecture, with technical expertise in Java, JavaScript, Vue.js, React, Spring Boot, HTML, Restful APIs, and Git.

- Object Oriented Programming (OOP) • Database Management • Problem Solving • UI Design
- Efficiency Improvement • Data Structures • Cloud Computing • Code Version Control

Languages: Java, JavaScript

Web: HTML, CSS, TailwindCSS, Bootstrap, React.js, Node.js

Web Services: RESTful API

Web/App Servers: Tomcat, Nginx, Apache

Frameworks: Spring Boot, Express.js, Vue.js

Databases: MySQL, PostgreSQL, Redis, SQL Server

Design Patterns: Abstract Factory, Facade, Command, Singleton, Prototype, Decorator, Proxy

SDLC: Agile

Tools: IntelliJ IDEA, Eclipse, Visual Studio Code, WebStorm, Postman, Docker, Navicat, Git

Platforms: Windows, Linux

PROFESSIONAL EXPERIENCE

CAREER NOTE: Completed on-campus studies and currently taking distance education courses to complete a **Master's Degree in Computer Science** (Available for full-time, W-2 employment).

SHANGHAI ORIENTAL MARITIME AFFAIRS ENGINEERING TECHNOLOGY, Shanghai, China • 02/2021 – 08/2024

A research and development company committed to energy equipment, railway testing, integrating production, learning and research, and providing many high-tech products, solutions and quality services for other enterprises.

Software Engineer

Designed and implemented frontend pages. Built backend services and developed functionality. Created database tables and optimized queries. Tested functionality for usability.

- Architected a scalable backend microservices system for a railway defect tracking platform using Spring Boot, Spring Cloud, and Java, significantly improving modularity and maintainability of the codebase.
- Engineered a frontend architecture with Node.js, Vue.js, and Element-UI, enabling modular UI development and increasing team productivity.
- Designed complex MySQL database schemas and optimized SQL queries, resulting in a reduction in response time and smoother data retrieval for critical modules.
- Implemented secure user authentication and authorization using Spring Security, blocking unauthorized access and protecting sensitive railway operation data from external attacks.
- Integrated Redis caching to store high-frequency data, reducing database query load and boosting system performance by 60% during peak usage.
- Developed rich, interactive data visualization dashboards using ECharts and Vue, enabling real-time railway defect analysis.
- Collaborated with clients to gather evolving requirements, translating them into technical deliverables and continuously refining the system based on feedback, resulting in a 95% user satisfaction rate.
- Deployed the complete system on client infrastructure, conducted live demonstrations, and provided comprehensive training, ensuring smooth adoption and usability by end users.
- Developed interactive waveform visualizations using ECharts, enabling users to intuitively monitor data trends and inspect specific positions, which improved data interpretation and decision-making efficiency.

Technologies Used: Java, Spring Boot, Maven, Node.js, Vue.js, Bootstrap, MySQL, Redis, MyBatis, Subversion, JavaScript, HTML, CSS.

ACADEMIC PROJECTS

Maharishi International University (2025)

- **Mini Property Management System:** A web-based application designed to manage property listings for sale and rent. The system supports three user roles: property owners, customers, and administrators. Key functionalities include property posting, property search and filtering, viewing property details, managing user accounts, and saving favorite properties. I was responsible for implementing backend features such as filtering property listings, retrieving detailed property information, and developing the favorites functionality for users. Utilized Spring Boot, Spring Security, React, PostgreSQL, GitHub.
- **Contacts Management Application:** A full-stack contacts management application that allows users to store, organize, and manage contacts info. I independently designed and developed the entire application. My responsibilities covered setting up RESTful APIs using Express, implementing real-time search, fast alphabet filtering, bookmarking, and contact export functionality. Utilized React, Express.js, Node.js.
- **E-commerce using serverless architecture:** An e-commerce web application designed for product browsing, purchasing, and order management. The system leverages serverless architecture hosted entirely on AWS. The frontend is built with ReactJS and deployed using Amazon S3 and CloudFront, while the backend is powered by Node.js, AWS Lambda, API Gateway, and DynamoDB for data storage. CI/CD is implemented using AWS CodePipeline. I was responsible for deploying the backend services using AWS Lambda, configuring the API Gateway, and implementing the CI/CD pipeline with CodePipeline to automate backend deployments. Utilized CodePipeline, S3, CloudFront, Lambda, API gateway, Cognito, DynamoDB, CloudFormation.

EDUCATION

Master of Science in Computer Science

(In progress via distance education; expected completion 06/2027)

Maharishi International University, Fairfield, Iowa

Key Courses: Web Programming, Web Application Architecture, Cloud Computing, Algorithms

Bachelor's Degree of Engineering in Computer Science and Technology

University of Shanghai for Science and Technology, Shanghai, China (07/2020)