Tran Dinh Hieu

Java Backend Developer

To advance as a skilled Java Developer, contributing innovative solutions to complex problems and staying at the forefront of technology trends

WORK EXPERIENCE

6/2018 - 10/2019

GREENGLOBAL

12/2019 - 1/2021

NCCSOFT

2/2021 - 10/2023

FPT SOFTWARE

10/2023 - 8/2024

NTR TECH

JAVA BACKEND DEVELOPER

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EDUCATION

DANANG UNIVERSITY OF TECHNOLOGY AND EDUCATION

Major: Information Technology

2014 - 2018

SKILLS

Programming:

Java.

Framework:

Spring Boot, ZK, AngularJS.

DevOps

Knowledge about Micro Services.

CERTIFICATIONS

English:

TOEIC: 535

PROJECTS



10/2023 - 8/2024

Toam size: 6

Real-time Customer Care Messaging Service

Name of customer: Chinese

Position: Backend Developer

Project Description:

• This system was designed to support job search and recommendation for candidates, as well as help employers find suitable candidates. In addition to internal data, the system integrates third-party data from platforms like Indeed ledili size. 0

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- Designed and implemented real-time messaging functionality using WebSocket and the STOMP protocol to establish live chat sessions between customers and support agents.
- Developed a message queuing system with RabbitMQ to handle notifications and async messages, ensuring that no chat messages were lost even during network disruptions.
- Created APIs for message retrieval and analytics using RESTful principles, allowing the system to store and retrieve chat history for future reference and analytics.
- Collaborated on the frontend development by integrating the backend with Angular/React, building a user-friendly interface that supports real-time chats and message notifications.
- Developed a customer-agent matching algorithm that assigns customers to available support agents based on predefined criteria such as language, issue type, and availability.
- Implemented end-to-end encryption for secure communication, ensuring that customer messages and sensitive data are protected during transmission.
- Monitored and optimized system performance, analyzing WebSocket connections, RabbitMQ queue handling, and Redis cache performance to reduce latency and maintain system uptime.

Project Achievements:

Optimized message delivery by implementing RabbitMQ.

Technology stack:

• Backend: Java11, Spring Boot, WebSocket.

• Database: MySQL.

• Frontend: Angular.

• Other Tools: RESTful API, RabbitMQ, STOMP protocol, Redis, Spring Security, Docker.

5/2022 - 10/2023

Job Search and Reccomendation System (FPT)

Name of customer: Japanese

Team size: 5

Position: Backend Developer

Project Description:

This system was designed to support job search and recommendation for candidates, as well as help employers find suitable candidates. In addition to internal data, the system integrates third-party data from platforms like Indeed

Responsibillities:

- 1. Job Search and Recommendation:
 - Integrated Elasticsearch to implement job search functionality based on keywords, location, salary, and other criteria.
- Built job recommendation features based on candidates' search history and profiles using data filtering algorithms.
- 2. Integration with Indeed API:
 - Developed a module to integrate job data from the Indeed API into the system, expanding the range and number of available jobs.
 - Synchronized job data from Indeed to ensure data consistency and freshness.
- 3. Candidate Search:
 - Developed a candidate search tool for employers, allowing searches based on skills, experience, and location.
 - Optimized the candidate search system with advanced filters and smart suggestions using Elasticsearch.
- 4. Management of Candidate and Job Information:
 - Designed MySQL database to store candidate information, job listings, and user interactions with the system.
 - Developed REST APIs enabling users to add, edit, delete, and search for jobs as well as candidate profiles.
- 5. Security and Access Control:

- Integrated OAuth2 for user authentication and access control to system features.
- Built role-based access control, ensuring only authorized users could access specific functionalities.

Project Achievements:

- The job search and recommendation system improved accuracy by 40% through the integration of Elasticsearch and optimized filters.
- Integration with Indeed expanded the job listings compared to internal data alone.
- Optimized search response times, reducing them compared to previous versions.

Technology stack:

- · Backend: Java, Spring Boot.
- · Database: Oracle.
- Other Tools: RESTful API, Redis, Elasticsearch, OAuth2, Integration with Indeed API.

2/2021 - 4/2022

Docomo Points Management System (FPT)

Name of customer: Japanese

Team size: 5

Position: Java Backend Developer

Project Description:

This project focused on managing Docomo points for users. The system allows
users to accumulate, track, and redeem points, while also enabling
administrators to manually adjust points in special cases. The goal of the project
was to optimize the point accumulation process and ensure smooth interaction
between the system and external services.

Responsibillities:

- Docomo Points Accumulation Feature: Developed the functionality to track and record user points (Docomo Points/D Points) based on their interactions with the system and external services.
- Points Earning Mechanism: Designed and implemented a system that allows users to earn points based on specific actions or activities.
- Points Redemption Feature: Built a system that enables users to redeem accumulated points for rewards or benefits.
- Real-time Points Balance Display: Developed a UI component to display the user's current points balance in real-time.
- Points History Tracking: Designed and implemented functionality to track and display users' points history, including earned and redeemed points.
- Expired Points Handling: Implemented a mechanism to handle expired points based on pre-defined rules or deadlines.
- Manual Points Adjustment: Developed a feature allowing administrators to manually adjust user points in special cases through an internal tool.
- Caching Mechanism: Integrated Redis and Caffeine to store frequently accessed data, such as points balances and transaction history, to improve system performance.
- REST API Development: Built RESTful APIs for internal and external services to interact with the Docomo points system.

Personal Benefit:

- Gained a deeper understanding of caching strategies with Redis and Caffeine.
- Practical experience in designing scalable REST APIs.

Project Achievements:

- Enhanced system capacity to handle over 1,000 concurrent users earning and redeeming points.
- · Reduced API response time by using Redis for caching.
- Successfully managed expired points and manual adjustments without impacting system performance.

Technology stack:

- · Backend: Java8, Spring Boot.
- · Database: Oracle.
- Other Tools: RESTful APT Redis + Caffeine

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12/2019 - 1/2021

Warehouse Management System (NCCSOFT)

Name of customer: Hungary

Team size: 4

Position: Java Backend Developer

Project Description:

 The warehouse management system was developed to support the entire warehouse process, including inbound, outbound, inventory management, and goods distribution. This system helps track inventory quantities, optimize order and shipping processes, and provides detailed reports for administrators.

Responsibillities:

- Designed and developed RESTful APIs using Spring Boot to manage warehouse functions like inbound, outbound, inventory check, and goods transfer between warehouses.
- Used MySQL and Liquibase to design and manage the database, creating tables to store product information, inventory quantities, and transaction history.
- Built an automated inventory control mechanism to monitor stock levels and trigger alerts when inventory reaches minimum levels.
- Developed reporting features, including inventory reports, inbound/outbound history, and demand forecasting based on historical inventory data.
- Managed and handled database changes using Liquibase, ensuring that database updates were tracked and deployed without impacting the system.

Project Achievements:

- Optimized warehouse queries, improving response time from 2 seconds to 0.5 seconds for complex inventory queries.
- Increased inventory reporting accuracy to 98%, helping minimize errors in inventory control and reordering.

Technology stack:

· Backend: Java11, Spring Boot.

• Frontend: AngularJS.

Database: MySQL.

Database Change Management: Liquibase.

· Other Tools: RESTful API, Git.

1/2019 - 10/2019

Investment Promotion Management System (GREENGLOBAL)

Name of customer: Vietnamese

Team size: 4

Position: Java Backend Developer

Project Description:

 The project aimed to develop an information portal system to manage investment promotion activities, track, and monitor the process of handling investment promotion documents. The system supports the management of project approval processes, document handling, and provides an interface for participating partners.

Responsibillities:

- Built a promotion process management system based on BPMN, allowing automatic creation, tracking, and management of investment approval processes. This optimized document handling and reduced processing time.
- Developed features for managing investment project documents, including creating, updating, deleting, and querying documents.
- Developed security features for the system using Spring Security, ensuring data protection and managing access control.
- Optimized database query performance by improving SQL statements and appropriate indexing structures.
- Integrated an automatic reporting system based on the performance of promotion projects, generating periodic reports for managers.

Achievements:

- Reduced document processing time from 5 days to 2 days through BPMN process automation.
- The system achieved 99.9% uptime reliability during its operation.

Technology stack:

• Backend: Java8, Spring Boot, Spring Security.

• UI: ZK Framework.

· Database: MySQL.

• Process Management: BPMN (Business Process Model and Notation).

· Other Tools: Maven, Git.

6/2018 - 1/2019

Sport Department Portal (GREENGLOBAL)

Name of customer: Vietnamese

Team size: 4

Position: Java Developer

Project Description:

 The Sports Department Portal is a web-based platform aimed at providing users with easy access to sports events, athlete information, and other relevant data.
 The platform enables administrators to manage event scheduling, track participation, and generate reports for public viewing.

Responsibillities:

- Backend Development: Implemented the core modules of the portal using Java 8 and Spring Boot.
- User Authentication and Authorization: Developed secure login functionality using Spring Security to authenticate and authorize user roles (admins, staff, athletes).
- Database Design: Structured and optimized MySQL tables to handle sports event data, user roles, and other related information. Ensured data consistency and integrity across the system.
- Frontend Development: Leveraged ZK Framework for building dynamic and responsive UI components
- Reporting: Develop a reporting function for statistics on the number of medals by time periods for athletes. Reports were exported in PDF format using JasperReports.
- Notification System: Integrated an email notification system that sends out alerts for event updates, registrations, and deadlines, utilizing Spring Boot's email functionality.
- Testing and Debugging: Wrote and executed unit tests for all critical modules using JUnit. Debugged and fixed issues related to user authentication.

Personal Gains:

- Gained in-depth experience with Spring Boot and ZK Framework for enterprise-level applications.
- · Enhanced skills in database optimization and query performance tuning.

Technology stack:

· Backend: Java8, Spring Boot.

· UI: ZK Framework.

· Database: MySQL.

• Other Tools: Maven, Git, JUnit.