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Summary

Objective: Actively seeking Software Development Engineer full-time position.
Languages: Proficient: Java Prior experience: C, Python, JavaScript, HTML, CSS, Shell
Technologies: IntelliJ, VNC, FileZilla, Spring MVC, Spring Boot, Spring Data, Maven, Tomcat, jQuery, MySQL, MongoDB, WebSocket, Bootstrap, RabbitMQ, JPA, RESTful Multi-threading, Object-Oriented Design(OOD), Xenserver, Docker.

Education

Concordia University, Montreal, QC	Master of Engineering, ECE	June 2015
Hainan University, Haikou, China	Bachelor of Engineering, Electrical	June 2011

Experience

Real-time Car Location Monitoring System in Java Spring

- Designed and developed a real-time car location monitoring system using Docker for configuration and deployment and Spring Boot, Spring Data and Spring Cloud to develop microservices of Location REST service
- Effectively implemented server side REST APIs, such as car location update API and location persistence API using MongoDB, Spring Data, Spring Boot and Spring MVC
- Incorporated RabbitMQ as Message broker to decouple back-end service
- Used Git as source code version control. Used Maven to manage dependencies

Design and Implemented a Tinyurl Service

- Designed and implemented a tinyurl service by read/write pattern, using HashMap to support runtime mapping
- Improved the tinyurl service to support persistent storage, using mongoDB
- Optimized the read speed of tinyurl service by adding HashMap as run time cache for database, using LFU strategy after comparing LRU and LFU
- Utilized 62 characters (Uppercase Lowercase and Digital) set to avoid hash collision
- Developed web page to provide service to users, using HTML5, CSS3, JS/JQuery, MongoDB

Improved Algorithm for Automatic Image Segmentation

- Used Area Morphological Operator instead of the Morphological Filters to simplify image
- Segment the image based on watershed algorithm and reduce the error rate by 20 %
- Programmed the algorithm in MATLAB and compared the segmentation results

16-bit Mini-MIPS RISC Processor Design

- Designed and Implemented a 16-bit RISC processor
- Solved 3 types of Hazard (Structural Hazard, Data Hazard, Control Hazard)
- RTL Synthesis auto place

Frequency Division Multiplexer Design

- Designed multiplexer with four input signals
- Designed de-multiplexer to convert the wide-band signal to four narrow-band signals and compared the four signals with the original input signals in MATLAB