Chaoneng Quan

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TECHNICAL SKILLS

Languages: Java, C/C++, Python, JavaScript, HTML/CSS, SQL, PHP, R, Bash
Frameworks/Library: React.js, Node.js, Mockito, JUnit, JDBC, Hibernate, Spring Boot, JWT, CI\CD
Tools: Git, Maven, Docker, Postman, Flyway, AWS EC2/S3/SQS, pgAdmin, vsftpd, Android Studio, Arduino

PROJECTS & EXPERIENCE

Shopping Mall Database | *Java, SQL*Plus, SpringBoot, Thymeleaf*   Nov. 2020 – Dec. 2020
- ⌂ github.com/ChaonengQuan/SqlPlus-ShoppingMall
- Built the information management system as a database-driven web application on Oracle's SQL*Plus 11g edition
- All tables including Member, SalesRecord, OrderItem, Product, Supplier, and Employee in the database are optimized to the 3rd normal form and support basic create, read, update, delete (CRUD) operations
- Implemented SOA framework where business logic layer was built on top of data processing layer(CRUD). Business logic layer operations including find the most profitable product and query for the top 10 spending customers

Sales Management API | *Java, PostgreSQL, Docker, Hibernate, Spring Boot*   Aug. 2020 – Present
- ⌂ github.com/chaonengquan/Sales-Management-Service
- Design and implement a modular and scalable J2EE sales management web service using Spring Boot that provides users with easy solutions to manage customers, orders, and inventories
- Implement the multi-layered SOA framework to separate the application into controller, service, and persistence layers to increase security and maintainability. Adopt MVC, Factory, Singleton design patterns in development to produce, testable, reusable, and loosely coupled code
- Use Maven to manage application dependencies, Docker to set up the local development environment, and Git to source control. Implement stateless authentication/authorization with Servlet Filter and JWT and integrate AWS S3, SQS service into application service layer with AWS SDK

Quad Tree Visualizer | *Java(Processing)*   Mar. 2020
- ⌂ github.com/ChaonengQuan/QuadTreeVisualizer
- Implemented QuadTree data structure with GUI application in Java that allows users to visualize the growth of the QuadTree by interacting with the application with simple mouse clicks

Line Sweep Algorithm Implementation | *Java(Processing)*   Apr. 2020
- ⌂ github.com/ChaonengQuan/LineSweepAlgorithm
- Implemented line sweep algorithm in Java to find intersection points between line segments in O(N log N) time, and allow users to visualize and understand the process with animation

Undergraduate Teaching Assistant   June 2020 – Present
University of Arizona   *Tucson, AZ*
- Assisted instruction of Systems Programming and Unix, Computer Organizations and Object Oriented Programming. Collaborated with professors and other TAs to help students learn Java, C, Bash, Linux, and MIPS(assembly language) with active learning strategies
- Improved team efficiency up to 25% by writing automated Bash grading scripts for assignments

EDUCATION

University of Arizona   Tucson, AZ
Bachelor of Science in Computer Science   *Aug. 2018 – Present (**May 2021**)*

South Seattle College   Seattle, WA
Associate of Science   *Sept. 2015 – Mar. 2018*

RELEVANT COURSE

Programming: Object-Oriented Programming, Web Development, Principles of Operating Systems, Computer Networking, Mobile Application Development, Human Computer Interaction
Algorithm: Analysis Discrete Data Structures, Algorithm Design
Data: Database Design, Data Mining