Tao (Simon) Cheng

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PROFILE

Senior Java Developer with 7 years of experience. Skilled in Spring Boot, Spring Cloud, MySQL, PostgreSQL, RESTful API and cloud-native development. Built high concurrency, high availability and low latency backend systems and supported millions of concurrent requests. Contributed to architectural decisions in large-scale projects and consistently delivered robust and reliable systems within Agile teams.

<u>SKILLS</u>

Web tech: Java17+, Spring, SpringBoot, SpringCloud, Mybatis, Hibernate, Redis, Kafka, JSON, Restful API, Microservices, JWT, OAuth2, JUnit5, Mockito
DB: MySQL, PostgreSQL, Oracle, OceanBase, MaxCompute, DataWorks
Tools: AWS, Azure, AliCloud, Linux, Git, Bitbucket, Maven, Docker, K8S, Jira, Jenkins, Github Actions, Zipkin, ELK, Postman

EXPERIENCE

Deloitte | Senior Java Sofeware Engineer | 04.2022 – 02.2024

Project 1 : OCBC Personal Deposit System

- Redesigned backend system to Java microservices, delivered architecture, sequence diagrams, workflows, and API specifications.
- Proposed and implemented a **dual-phase sprint model**, reducing rework caused by unclear requirements by 40%, improving design approval rates.
- Coordinated a cross-functional team of 6 members, facilitated daily meeting and unblock sessions.
- Designed an enquiry module with event-driven architecture, achieving response times under 200ms.

Project 2 : Sanofi Medical Representative System

- Refactored a complex reverse-match function with 10+ undocumented legacy logic branches and poor maintainability. Led a gradual, risk-controlled refactor process using XMind to map business logic and validate with stakeholders.
- Wrote comprehensive unit tests to ensure functional integrity after refactoring;
- Improved integration testing efficiency by ~30% through structured test data setup and teardown, ensuring isolation, consistency, and reliability.
- Rapidly fixed NPE production issue, delivered a hotfix with root cause analysis (RCA) and long-term data validation strategy.

Alipay (Alibaba Group) | Senior Java Software Engineer | 07.2021 – 03.2022

File Platform System | TB-Level Daily Volume across 100+ Banks

- Independently developed a high-availablility File Platform System, supporting terabyte-scale daily data (e.g., payments, refunds, loans, fees) between Alipay, government, and hundreds of banks via DB↔SFTP, DB↔OSS.
- Applied **Strategy and Factory design patterns** to integrate multiple SDKs (e.g., DataWorks, DataPhin), improving system extensibility and maintainability.

- Proposed a **decisive solution** and **architectural shift** to the **cross-domain deployment** challenge with incompatible infrastructures (Alibaba, government, and banks); Designed a **unified, multi-module, maven profile-based solution**, enabling 0->1 and scalable 1->N scaling.
- Implemented a **high-availability strategy** to avoid external service failures, including rate limiting, circuit breaker with retry, asynchronous fallback handling, scheduled recovery, and real-time alerting.
- Built automated file comparison scripts, saving **2~3 hours of manual effort daily** and enabling smooth production rollout.
- Enabled **60%+ of teams** to automate file transfer, **improving productivity by ~20%** by eliminating manual weekly data handoffs.
- Resolved SDK delays by re-estimating tasks, escalating blockers with backup plans, and coordinating stakeholder meetings to negotiate phased delivery, ensuring project continuity.

SINOSIG | JAVA SOFEWARE ENGINEER | 10.2018 – 03.2021

Insurance Portal System

- Designed a **scalable**, **configurable policy processing module** to digitize offline insurance workflows (e.g., policy confirmation, facial recognition, images upload, claims...), improving code maintainability, testability, and readability.
- Diagnosed and resolved a recurring OOM issue by **analyzing heap dumps with MAT**; delivered a hotfix and documented the incident for knowledge sharing with stakeholders.
- Optimized third-party system API queries using **thread pools** to improve throughput and concurrency; implemented **Redis caching** to reduce latency and **over 80% costs**.

NETEASE | JAVA SOFEWARE ENGINEER | 04.2017 – 07.2018

Promotion System | Million-level concurrency

- Contributed to optimizing a high-traffic Promotion System, it supported over 10 promotion types (e.g., reduces, discounts, flash sales, group buys) with **peak QPS of 320,000 and millions of users**.
- Identified and resolved critical timeout issues during performance test by **analyzing heap dumps with MAT and GC logs with JProfiler**; pinpointed inefficient object structures causing frequent Full GC.
- Improved core interface **throughput from 28,000 to 320,000 QPS** through object structure optimization, **JVM tuning**, and interface degradation strategies.
- Enhanced key API performance by implementing **batch processing and asynchronous calls** for frequently invoked external services, reducing response times from **6s** -> **200ms**.

EDUCATION

Bachelor's degree in education (Major in Software Engineering)

Chongqing University of Posts and Telecommunications | 2016 | China