

Yaolong Zhu

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Summary

- Senior Java developer and architect with extensive experience in software development.
- Proficient in microservices architecture, domain-driven design (DDD), high availability, and high concurrency system design.
- Skilled in end-to-end problem-solving for system development and design.
- Experienced in DevOps practices and Agile methodologies, ensuring efficient and collaborative development processes.
- Passionate about tackling technical challenges with a continuous improvement mindset.
- Strong team player with excellent collaboration and mentoring abilities.
- Certified in TOGAF, with expertise in enterprise architecture.

Skills

- **Programming Languages and Frameworks:** Expertise in Java (Java 17+) and object-oriented programming (OOP). Proficient in the Spring ecosystem, including Spring Boot, Spring Core, and Spring MVC.
- **Architectural and System Design:** Experienced in designing and architecting highly scalable, reliable distributed systems using microservices and domain-driven design (DDD) principles.
- **Persistence and Databases:** Experienced in working with relational databases such as MySQL and MSSQL, as well as NoSql such as Redis. Proficient in ORM frameworks (JPA/Hibernate and MyBatis), and data modeling.
- **Messaging Systems:** Skilled in event-driven architectures, utilising message queues such as Apache Kafka to build decoupled, fault-tolerant systems.
- **API Design:** Proficient in building and maintaining RESTful/SOAP and GraphQL APIs for querying and interacting with backend systems.
- **Containerisation and Orchestration:** Experienced in containerisation using Docker and managing containerised applications using Kubernetes for scalability and deployment automation.
- **Testing and Development Practices:** Proficient in Test-Driven Development (TDD) and experienced with testing frameworks such as JUnit, Mockito, Cucumber and Spock for unit and integration testing.
- **Build Tools and CI/CD:** Experienced in Gradle and Maven for project build and dependency management, and familiar with CI/CD practices using Jenkins and GitHub for version control and automated deployments.
- **Cloud and DevOps:** Proficient in AWS and Azurecloud service. Experienced with DevOps tools and methodologies, including CI/CD pipelines, logging, monitoring, and working in Agile environments.
- **Version Control:** Strong experience with Git and GitHub for source control and collaborative development.

Employment History

Sportsbet - Application Architect

September 2023 - Present

NRL & AFL Model

- **NRL and AFL Model Development and Maintenance:** Maintain the NRL Model and develop the AFL Model, both of which are critical systems for generating betting markets, selections, and odds for NRL and AFL games based on trader inputs.
- **Event-Driven, DDD and TDD-Based Architecture:** Work within an event-driven microservices architecture, leveraging Domain-Driven Design (DDD) to model business logic and Test-Driven Development (TDD) to ensure code quality and system reliability. This approach ensures scalability, resilience, and maintainable code.
- **Backend Development and Key Contributions:** Play a significant role in Java-based backend development, contributing to the overall system's stability, performance, and continuous improvement through high-quality code and event-driven patterns.
- **System Troubleshooting and Optimization:** Regularly troubleshoot, debug, and optimise microservices, solving complex issues and improving system performance to meet the high-demand nature of betting operations.
- **Mentoring and Guiding Engineers:** Provide technical guidance and mentorship to junior and mid-level engineers, promoting best practices in DDD, TDD, and microservices architecture, while supporting the team's broader technical initiatives.
- **Collaboration and Technical Leadership:** Collaborate with cross-functional teams to align on system design and architecture, ensuring that solutions follow best practices and meet the company's strategic objectives.

Procter & Gamble - Application Architect

July 2020 - March 2023

P&G CRM Microservices

- **Design, Implement, and Maintain Microservices:** Focus on the architecture, design, implementation, and maintenance of consumer-facing and CRM-related microservices, ensuring systems are scalable, secure, and maintainable.
- **Microservice Refactoring & Scalability:** Led the refactoring of Account microservices using test-driven development (TDD), domain-driven design (DDD), and database sharding technologies. Delivered scalable microservices capable of supporting over 100 million members and handling 1600+ queries per second (QPS) during peak periods.
- **Optimisation of Loyalty Microservices:** Optimised Loyalty microservices to allow for flexible configuration of various loyalty rules. Adopted TDD practices to maintain high code quality and system reliability.
- **Guardian Microservices Development:** Led the development of the Guardian microservices using OAuth2 and JWT technologies to safeguard customer data and prevent information leakage, ensuring compliance with industry standards and privacy regulations.

- **Integration Architecture & Connector Development:** Designed and developed a connector microservice for P&G, enabling seamless integration with multiple e-commerce platforms, facilitating over 5 million orders daily.
- **Collaboration with Stakeholders & Cross-functional Teams:** Collaborated closely with stakeholders from marketing and other business units to ensure architectural solutions align with business objectives. Effectively communicated architectural decisions and technical concepts to both technical and non-technical teams.
- **Architectural Guidance & Best Practices:** Provided architectural guidance, best practices, and standards to steer the development process, ensuring alignment with the architectural vision and business goals. Participated in architecture governance activities, such as reviews, audits, and compliance assessments.
- **Scalable and High-Performance Architectures:** Designed scalable, high-performance architectures for CRM-related microservices to support increased workloads and future business growth. Leveraged technologies like Azure and applied the TOGAF methodology in architectural decision-making.
- **Team Leadership & Mentorship:** Led team management efforts, mentoring and coaching junior developers to foster technical growth and collaboration within the team.
- **Consumer Data Platform Development:** Contributed to the development of a consumer data platform, a critical component for P&G's marketing strategy, enabling member engagement through channels like SMS and AI calls.

Midea Group - Senior Software Engineer

March 2019 - July 2020

International Channel Collaboration System

- **System Design and Implementation:** Designed, implemented, and maintained Midea's International Channel Collaboration System, ensuring high availability and scalability.
- **Microservices Architecture Migration:** Utilised microservices architecture to decompose the existing monolithic application into smaller, manageable services, improving system modularity and maintainability.
- **DevOps Practices and Tooling:** Adopted DevOps practices and tools such as Git, JIRA, Jenkins, Sonar, and logging & monitoring systems to streamline development, deployment, and continuous integration processes.
- **System Performance Optimization:** Improved the core API response time from 1 second to 30 milliseconds by introducing Redis caching, drastically enhancing system performance.
- **System Decoupling and Fault Tolerance:** Implemented Kafka message queues to decouple system dependencies and improve fault tolerance, ensuring the system remains robust during peak loads or failures.
- **Code Reviews and Quality Assurance:** Conducted regular code reviews and implemented quality assurance measures, maintaining code integrity and improving overall software quality.

Hawkeye Data - Software Engineer

December 2016 - December 2017

Hawkeye Data Engine (HDE)

- **Foundational Member of HDE Setup:** Played a key role in setting up HDE from scratch, contributing to both technical direction and foundational system design.
- **Microservices Development in HDE:** Developed and deployed project management, report management, and task management services, leveraging microservices architecture and the Spring Cloud ecosystem.
- **Feature Definition and Collaboration:** Collaborated closely with the product manager to define and prioritize key features for HDE, ensuring alignment with business needs.
- **Big Data Processing with Spark:** Created a Spark module to address HDE's big data processing requirements, optimising data handling and analytics capabilities.
- **Cross-Functional Team Collaboration:** Worked with cross-functional teams to design, develop, and deploy software modules, significantly improving performance and overall system efficiency.
- **Implementation of Development Best Practices:** Implemented best practices in software development, including conducting code reviews, thorough testing, and comprehensive documentation to maintain high standards of code quality and team collaboration.

HSBC - Software Engineer

March 2015 - December 2016

RAVEN (Counterparty credit risk core system)

- **RAVEN System Enhancement:** Focused on enhancing and maintaining the RAVEN system, ensuring its continued reliability and functionality.
- **Code Refactoring for Readability:** Refactored RAVEN system code to improve readability and maintainability, leveraging Sonar hints to identify and resolve code quality issues.
- **Collaboration on Platform Upgrades:** Collaborated with third-party suppliers to upgrade the platform and improve the price calculation module, while ensuring seamless updates to system interfaces.
- **Multi-Exchange Rate Capability Enhancement:** Enhanced RAVEN's support for multi-exchange rate calculations, improving the system's ability to handle complex pricing scenarios.
- **Comprehensive Testing:** Conducted unit tests, integration tests, and user acceptance tests to ensure the robustness and accuracy of the system after enhancements.

Education

- **Feb 2013 - Dec 2014:** Master of Applied IT, Monash University
- **Sep 2008 - Jun 2012:** Bachelor of E-commerce, Guangdong University of Finance & Economics

Certificate

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