Yang Yibo

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Gender: Male | Degree: Master | Age: 32

Profile

- 7 years of experience in the backend development and focus on performance tuning and stability maintenance etc.
- Lead the development and maintenance of multiple projects for many times, proficient in Mysql,Cache,Micoservice,Spring, Kafka, Flink etc.
- Quick and active learner, familiar with daily communication and writing in English.

Education

Shandong University	Master of Computer Science	Sep 2014- Jul 2017
Shandong University	Bachelor of Computer Science	Sep 2010- Jun 2014

Experience

Alibaba Group-Taobao Open Platform Technology Department China

Senior Software engineer *Jan 2020 – June 2024*

API Gateway Stability Optimization

- **Asynchronous Transformation**: The gateway underwent a complete asynchronous upgrade. container-level asynchrony and backend request asynchrony; By adopting an asynchronous calling method, occurrence of thread pool saturation can be prevent
- **Optimization of Caching Mechanism**: fullgc optimization of online environment appkey based on bloom filter; optimization of pre-online environment permission package caching mechanism;
- **Automated Testing Mechanism**: Built API automated testing capabilities from online API trace (sampling and recording API call trace through message queue metaq, sinking to the test case set, then replaying in the pre-release environment, also supporting scheduled inspection tasks, etc.), improving API release efficiency and stability.

  Achievements: The gateway platform's stability improved by 5%. And total API call success ratio improved from 93% to 97%. While the whole daily API call number is about 30+ billion.

Internal Developer Services (For ISP)

- **API Workbench Refactoring and System Migration**: Abstracting and unifying API development processes, introducing workflow engine and message queue to upgrade the API release process, improving SDK generation speed, enriching API testing toolchains etc. to enhance developers' experience through technology-driven improvements. It has also successfully completed the smooth migration of over 3w+ APIs, establishing a set of system migration methodologies.
- **Efficiency Optimization**: Provided quick API SDK generation based on annotations, allowing developers to quickly develop APIs and introduced intelligent approval methods, reducing approval forms by 43%.
- **API Realtime Diagnosis**: Used Flink for real-time aggregation analysis of API call logs, quickly locating problems based on time intervals, error codes, applications, APIs, etc., and quickly recovering by combining traffic control strategies.

  Achievements: API workbench system bug rate decreased by 5%; The average API publish time improved 50%

External Developer Services (For ISV)

- **SOP Tools Development**: SOP tools were quickly orchestrated by workflow and microservices to provide technical support and external developers with a rapid troubleshooting tool.

- **Intelligent Q&A**: Introduced intelligent Q&A (NLP/ChatGLM large language model) tools to help internal developers quickly locate problems, reducing consultation volume in Q&A groups

Achievements: The efficiency of ISV development improved 50% .While the platform services for 2k+ active ISV developers.

Yidian-BigData Platform department China

Software Engineer *Jul 2017-Jan 2020*

- Build message middleware (kafka) platform to improve the access efficiency and stability of internal developers

System Stability Optimization

- Through the secondary development of kafka client, the problem of non-standard client use and multi-cluster disaster recovery was solved;
- Core service clusters are split and isolated, cluster versions are upgraded, and Kafka cluster parameters are optimized to improve the overall system stability.

Message Queue Management Platform

- Topic application, rights management, operations, audit, etc
- Topic metric system development, including the partition level of writing and read rate, latency, etc
- Core topic flow fluctuation monitor

Achievements: The number of daily messages is 250K/s, the fault frequency is reduced to 50%, and the resource utilization is increased by 44%

- Data service for data analysts and algorithm department

- Developed an internal big data task hosting platform, including management functions such as task upload and execution, version rollback, and task health status monitoring.
- Realized user behaviour click, exposure log cleaning, online Join, abnormal user cleaning, etc., and generate corresponding online training data for the algorithm team by flink.

Achievements: The big data computing platform hosts 200+ tasks and provides the algorithm department with an average daily sample number of 10 billion +.

National Supercomputing Center & Tsinghua University China

Visiting student *Oct 2015 – Jun 2017*

1. I/O performance optimization of domestic numerical weather prediction GRAPES on IBM machine of National Weather Service
2. Based on the I/O performance diagnosis analysis and optimization tool on Sunway TaihuLight supercomputer

Publications

1. I/O Trace Tool for HPC applications over Sunway TaihuLight Supercomputer (HPC china 2016 best paper)
2. Bin Yang, Xu Ji, ...Yibo Yang, Jidong Zhai, Weiguo Liu, Wei Xue. (2019). End-to-end I/O Monitoring on a Leading Supercomputer. In 16th {USENIX} Symposium on Networked Systems Design and Implementation ({NSDI} 19) (pp. 379-394).

Skills

1. Proficient in reading English and basic daily oral communication
2. Proficient in JAVA, multi-threaded programming
3. Familiar with Mysql and other relational databases
4. Familiar with message queue, Flink, API gateway and other fields
5. Part of react front-end development