

Kaipeng Wang

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Education

Johns Hopkins University, MSE in Computer Science

August 2023 – May 2025

- **Coursework:** Computer Architecture, Advanced Networks: Internet Measurement, Blockchain, Parallel Computing.

Henan University of Technology, BS in Internet of Things

August 2019 – July 2023

- **Coursework:** Operating system, Data Structure, Algorithm Analysis and Design, Object-oriented programming basics.

Work Experience

Ant Group(Alipay) – The Largest digital payment company in China.

Jul 2023 – Jan 2024

Software Engineer Tech: Java, Git, MySQL, Redis, Distributed Systems, Alibaba Cloud, System Design

HangZhou, China

- Improved labelling efficiency of Alipay fund supply management by achieving automatic label management through API calls from other services, reducing manual effort and error rates.
- Improved efficiency of Alipay fund recommendation words by 40% through 0-to-1 construction of the AIGC keyword system.
- Ensured users only see funds meeting their criteria by implementing keyword-based recommendation and filtering for Alipay funds, using the intersection of fund keywords and user keywords.

Dora – Startup, Product Hunt Champion of the Year 2023.

Jul 2022 – Jan 2023

Software Engineering Intern – Tech: Java, Shell, PostgreSQL, Redis, AWS, Elastic Search, kafka, Kubernetes

Beijing, China

- Prevented excessive Elasticsearch sharding by consolidating 1000 projects into a single sharding using "esIndexId" field.
- Developed no-code Groovy scripts via a custom scripting engine, enabling email verification, copy information without code.
- Improved project architecture by implementing workspace concept and logic to ensure Multi-person synchronization.
- Integrated RabbitMQ for asynchronous message processing, enhancing system reliability and throughput.
- Participated in backend server operations and maintenance, including automating git push and deployment using shell scripts and managing Kubernetes node maintenance.

JD.com – One of China's largest e-commerce platforms

Sept 2021 – Nov 2021

Software Engineering Intern – Tech: Java, PostgreSQL, Redis, MongoDB, JWT(SSO), Nginx

Beijing, China

- Developed and deployed interfaces for JD's new credit platform, ensuring seamless data consistency and reducing API response time by 20%.
- Created "Chaos Blade," an internal tool to test system stability under high-traffic promotional events, ensuring fault tolerance during peak loads, improving system scalability and stability.
- Utilized SQL queries to count and analyze the number of users who failed to access the system within specific time periods, leading to a 25% improvement in error detection and resolution efficiency.

Projects

Clue-Less Game

Online Display

- Implement third-party login using OAuth (GitHub, Google) with OAuth2.0.
- Designing the storage of user actions using JSON (e.g., current location, movement direction, game items).
- Deploy the project using PaaS (Vercel).

hertzbeat

GitHub Repo

- Enhanced string processing logic by refactoring algorithms and implementing multi-threading using Java's concurrency features. This optimization reduced processing time by 30% when handling datasets, significantly improving efficiency.
- Optimized unit tests (UT), increasing test coverage from 70% to 90%, leading to more robust and reliable code.
- Implemented a WeChat alerting feature, enabling instant notifications and improving response times at time.
- Improved user login authentication mechanisms by implementing multi-factor authentication (MFA) and enhancing password hashing algorithms using bcrypt, which enhanced security

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GitHub Repo

- Fix errors in time caused by different time zones.
- Modify Date Format-related content.

Technical Skills

Language: Java and related frameworks (such as Spring Boot), Go, Shell, C/C++, TypeScript.

Tools MySQL, PostgreSQL, Redis, RabbitMQ (or similar like RocketMQ), Nginx, Docker, Kubernetes, CI/CD, AWS, RESTful API.