



Joo He

Engineering + Manager

■ Summary

Architect Engineer with strong team management experiences in the areas of Internet, Social Media, Mobile APP and enterprise software. Excellent problem solving skills with 100% successful project delivery record as project lead role.

- Proficient with Java language and advance understanding of hotspot JVM. Rich experience in JVM tuning and performance optimization.
- Proficient with Full-Stack Javascript tech-stack including Node.js, React and React Native. Rich experiences of building startup/innovation products.
- Proficient with production environment operations and public cloud setup especially AWS and Ali cloud
- Rich experience of large-scale Internet applications, experienced in design scalable architecture for 30+ million active users application back-end. Advance understanding of how the large scale application scale up and scale out.
- Rich experience of full-stack development, familiar with both back-end technologies and also front-end/app-end technologies. Also familiar with JS stack and Python stock besides Java stack technologies. Familiar with iOS/Android native development and also react-native/flutter cross platform development.
- Deep understanding for both Object Oriented Programming and Message/Domain Driven Programming. Practitioner of Test Driven Development and Continuous Integration.
- Proficient with Scrum/Agile methodologies and also PMP certificated. Strong leader in a multi-site and multi-culture team, rich collaboration experiences with US and European engineering teams, strong communication skills and easygoing personality.
- 18+ years working experience in software engineering industry. 15+ years of Java/Javascript coding experiences and engineering management experiences

■ Experiences

Brix - An US O2O eCommerce Platform - Engineering Manager 2022.04-2024.01

This product is to build an all-in-one e-Commerce platform for an United States grocery stores, which supports O2O same day delivery, B2C shipping and 2nd day delivery eCommerce business models, it's also a platform to make the suer can share/gain benefits on both Online and Offline store purchases.

Tech Stack: Java, Node.js, React Native, React, Swift, Kotlin



Services: AWS S3, MySQL(Aurora), Redis, SQS, Opensearch, K8S, ECR, CloudFormation, Twilio, Lambda, CloudFront, Docker, Firebase, BigQuery, GA

Responsibilities and Achievements:

- Lead a 20 persons engineering team.
- Coordinate US product, eCommerce, business and IT team.
- Design and Implement a Highly Available back-end architecture , core back-end feature development and architectural programming.
- Design and Lead a feasible App and Frontend Application.
- Lead production environment operations and AWS cloud environment setup.
- Design and Lead a micro-service based eCommerce backend platform including Products, Memberships, Promotions, Delivery, Warehousing and Business Analysis System.

Brix - A Pet Owner/Practice Community Platform - CTO 2021.01- 2022.04

This product is to build a pet-veterinary community to helps pet owner easily finds and connects best service vet hospitals/practices. This includes a social based Pet App, an user friendly veterinary practice management system and a simple Veterinary App.

Tech Stack: Java, Node.js, React Native, Vue.js, Swift, Kotlin

Services: AWS S3, MongoDB, Redis, SQS, Postgre, Elastic Search, K8S, CloudFormation, Twilio, Lambda, CloudFront, Docker, Firebase, BigQuery, GA

Responsibilities and Achievements:

- Lead a 8 persons engineering team.
- Coordinate US product/operation team.
- Design and Implement a Highly Available back-end architecture , core back-end feature development and architectural programming.
- Design and Lead a feasible App and Frontend Application.
- Lead production environment operations.
- Design and Lead a feasible integration service which connects the most common 3rd party PIMS, CRM and Data Analysis platforms.

JiuJiu Game App Platform - CTO 2019.09-2020.12

JiuJiu is a social based cloud gaming platform, as a tech lead of this team, I was responsible for the major project management, technology management and team management.

Tech Stack: Node.js, React Native, Vue.js, Python

Services: AWS S3, MongoDB, Redis, Elastic Search, K8S, Media Convert, CloudFront, CloudFormation,

Responsibilities and Achievements:

- Lead a 10 persons engineering team.
- Participate the product design and requirement analysis, user story development.



- Lead the app UI/UE design and back-end architecture design efforts.
- Design and Implement a Highly Available back-end architecture , Core back-end feature development and architectural programming.
- Team management and Project management of a 7 persons team.
- Lead the App-Store go-live efforts.
- Implement a high performance and highly available instance messaging server.
- Design and Implement a iOS/Android api library for 3-rd party cloud games that would integrate with JiuJiu App.

Pangaea Technology 2013.09-2019.09

As the CTO and Engineering Team Owner of this startup company, I was responsible for the major project management, technology management and 15 person's tech team management. In the mean time, I was responsible for the major project, a social Facebook clone project to against Facebook. Below are the major parts of the project.

- Design and Developed an Akka and Netty based messaging server, with this Actor Model design, the system can easily scale out and scale up. We implemented a customized cluster of 5 nodes Akka system, which 1 node can serve 100,000 real-time messages per second and 4 millions Websocket clients online.
- Designed and Developed a news feed system based on Redis, Kafka and MySQL, Redis serves the user feed, Kafka caches the new post process and MySQL stores the static post content.
- Designed a Social Graph based on Redis and MySQL, using Redis set to store user relationships, developed some customized code inside Redis to serve pagination API, etc.
- Designed a Solr based search engine to serve people and content searching.
- Developed an iOS APP with full feature of a social APP, such as news feed, social features and messaging features.
- Developed a friendship recommendation engine based on Hadoop and HBase, using relevance ranking algorithm to implement the recommendation features as LinkedIn (People you may know).
- Designed a Serviced Oriented Architecture both on Back-end and Front-end application, back-end application uses binary API to serve to internal applications, front-end application uses Restful JSON API to serve to device application and web AngularJS.

Symbio 2011.08-2013.08

Architect and Engineering Manager, major were running the project with the top blogging site – livejournal.com that is ranked #71 in the world on Alexa Ranking (in 2012, 100 million page views per day), the site was developed in Perl and used a monolithic architecture that is not



allowing fast feature innovations. We ran this ReArchitecture project to help Livejournal to migrate their old design to a BASE oriented service architecture.

- Developed a relation service, which serves 30+ million active users and stored 20+ billion relationships. It can serve 40,000 relations write requests/second at the peak time.
- Led and managed 15 high performing engineer team as well as led operation and development team (2~3 Russian and US engineers) at client side remotely.
- Led the architecture design and client engineering team communication effort. On-site at client Russia office a lot to improve the 2 teams collaboration and delivery productivity.
- Developed a common cluster management tool based on Zookeeper, it can manage different load balance and clustering strategies such as consistent hashing, also implement the dynamic fail-over handling and real-time migration support.
- Developed a monitoring stats system, can monitor the real-time JVM stats, including user requests, messaging in queue stats, memory/CPU usage JMX, also can monitor the live stats of each JVM for operation team.

Kickstart Software Solutions 2009.08-2011.08

Product Owner and Co-Founder of this start-up company, we were running an open-table alike application in China market.

- Product management for the whole application. Responsible for requirement analysis, product backlog management and project management.
- Designed and developed a CRM system, reservation system and ordering system for restaurants based on Java, Spring, Hibernate and MySQL.
- Developed a pure JS front-end application based on jQuery.
- Developed a telephone integration system for restaurant so that a customer call is coming, you can be simply aware of the client information during the call, including ordering history and reservation preferences.

Symbio 2006.08-2009.08

Lead Engineer and Engineering Manger of a lot of Java EE projects.

- Led 20+ engineers team for a US Court System in Illinois. Using Java EE tech stack, EJB2/3, Spring, SQLServer Store Procedure, Drools, Mule, Ant, Hibernate/JPA and Jasper Report.
- Worked overseas in Chicago for a few months to do requirement analysis, architecture design and client communications.
- Led and developed a financial information system using Spring, iBatis and Oracle.
- Led and developed a HR information system using Spring, Hibernate, Struts and MySQL.

Chengdu Sifang Technology 2005.02-2006.08



Senior Engineer.

- Designed and developed the company Java Stack Framework for a few CRUD projects. Using configuration to replace the dummy codes of basic CRUD features. All pages and domain are generated once you finished the database design.
- Developed some Telecom operation systems using EJB and Store Procedures.
- Developed a hospital information system using EJB and Struts.
- Developed a reporting system using Crystal Reports, have ever written over 600+ lines of SQL select statement for some complex report.

■ Education

Sichuan Univeristy, M.S, MBA, Graduated 2015

Chengdu University of Inforamtion Technology, B.S, Computer Science, Graudated 2006