Personal Information

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Years of Work Experience: Over 10 years Position: Web Engineer Email: STLCXC@163.com

Project Experience

PwC Information Technology (Shanghai) Co., Ltd.

1. Server-side
    - **Onboarding System (March 2019 - June 2023)**

      > It includes various task activities and message management during employees' onboarding and employment periods, as well as the client and management systems of the intelligent customer service.

        - Participated as a backend mainstay in the design and discussion of various new features and maintenance.
    - **A Bank Risk Management System (June 2023 - June 2024)**

      > Manages the risk control of various models of the bank and questionnaires, etc.

        - Participated as a backend mainstay in the design and discussion of various new features and maintenance.
    - **Internal POC Project: AI Flow Creator (July 2024 - May 2025)**

      > An AI low-code platform based on Flowise, integrating the company's internal systems and customizing the front-end AI and some components.

    - **Internal Project Management System (July 2024 - May 2025)**

      > Manages project resources hierarchically based on upper-level project management and filters and judges project progress.

Shanghai Xiudian Network Technology Co., Ltd.

1. Server-side
    - **A TV Station App (October 2018 - February 2019)**

      > An app with a series of functions such as TV program viewing reminders, a mall, games, and red envelope grabbing.

        - During the app docking phase, participated in the discussion and design of interface specifications, unifying the entire client interface standards.
        - Developed the entire logic of the koi activity. In the design, reasonably used the message queue to decouple the native logic of the app from the activity logic.

        - For the lottery logic, developed a set of prize distribution logic for the normal distribution of prizes.
        - In the use of Redis: stored tokens in Redis to achieve session sharing and avoid the disadvantage of JWT that the issuance time cannot be controlled midway; implemented the most frequently played games through sorted sets; and implemented scheduled tasks through expired keys.
        - Participated in the invitation test of Alibaba Cloud interactive live broadcast and designed part of the live broadcast logic prototype.
    - Xiudian 2.0 (August 2018 - October 2018)

        > An e-commerce platform, including products, inventory, etc. (I participated in the promotion part, partner rule formulation, and profit-sharing settlement).

        - The app side of the promotion module (docked with Android and iOS requirements to provide interfaces).
        - And the development of background interfaces (participated in the design and development of some business logics).

Shanghai Jinqiao Information Co., Ltd.

1. Server-side
    - **Meeting Platform System (October 2016 - August 2018)**

        > A meeting system based on third-party audio and video SDKs. It is a basic product for meetings that can create meetings, make appointments, control meetings, conduct live broadcasts, and record broadcasts. It has derived customized products for the education industry - public class live broadcasts and the court industry - enforcement on-duty.

        - Design stage:
            1. Introduced the concept of the authentication center to solve the problem that in previous projects, each project had to independently develop a user system and synchronize data between systems.
            2. Designed unified permission management and external application access management to solve the problem of unified setting, storage, and distribution of configuration for other microservices to access in subsequent development.
            3. Promoted the specification of using Markdown to write documents, effectively improving the efficiency of document writing, publishing, iteration, and sharing.
        - Development stage:
            1. Developed a third-party Node.js SDK to facilitate other colleagues in the company with the same technology stack to access, and provided standard HTTP interfaces externally for other languages to implement access.
            2. Participated in the design and development of the docking of the address book with DingTalk, SMS calling, and external live broadcast and recording interfaces, implementing the architecture form of single responsibility for each service.
            3. Used Mocha.js, Nock, and Supertest to implement automated unit tests, effectively reducing the risk of code robustness caused by rapid iteration in the agile development process.

4. Used the async/await feature of the new version of Node.js to further improve the readability of asynchronous code.
5. Introduced the GitFlow development process to help the team switch from SVN to Git, solving the problem of excessive and chaotic project codes branched from the basic code. It also solved the standardization of version release, making the development branches clear and the team collaboration clear when handling online bugs.
6. Participated in the design and promotion of the use of a MongoDB cluster, improving the system's concurrency performance and database stability. Through experimentation and summarization, optimized the database design, reducing the request time for 1000 QPS from 6 seconds to 3 seconds.
7. Introduced Redis to cache pages, accelerating the rendering efficiency of Jade template pages and saving the time for refactoring the template engine.

- Deployment stage:
  1. Used Docker, AliNode, and New Relic to manage and monitor the online and test environments. This greatly increased the team's ability to discover code design issues and difficult bugs, and made performance optimization more intuitive.
  2. Configured Nginx and each service cluster to make the services managed by the platform unique, and achieved load balancing of each instance under the same service through Nginx.

- Scheduling System (May 2015 - May 2016)

  > A teacher-based course scheduling system.

  - Based on the reservation system, increased the use of Backbone.js to develop some abstract components for the team to reuse.
- Meeting Reservation System (October 2014 - December 2015)

  > A web reservation system that cooperates with Android terminals for meeting room reservations.

  - Replaced the company's internal framework with the more open-source Express framework, solving the unreliability of the original framework where the database could only be SQLite and all data was stored in memory.
  - Introduced MongoDB as the main database.
- Announcement System (October 2013 - October 2014)

  > A web interface layout that cooperates with Android and Windows terminals to display the announcement service system.

  - During the callback period, used Async.js to manage the readability of asynchronous code.
  - When first exposed to Backbone.js on the front end, implemented component-based development for the first time through the design of functions such as file download, viewing, and management.

2. Client-side
   - WeChat Access Control (October 2015 - October 2016)

     > Docked with enterprise WeChat and access control providers to use the QR code scan function to open the company's access control system.

        - Tried to dock with WeChat, solving the problem that some colleagues couldn't enter the company to get things because they forgot to bring their access cards.
    - HTML5 Scan Navigation (February 2016 - June 2016)

      > A simple navigation process made with HTML, integrated into the WeChat system built in the access control.

        - Cooperated with the company's guide machine project at that time to facilitate navigation in environments with few points.
    - Developed table and pagination components based on Backbone.js

      > Based on the summary of multiple projects, developed some reusable components based on Backbone.js, such as customizable tables automatically generated based on collections.

    - Docked with the HTML5 mini-app of DingTalk (address book synchronization)

      > Similar to the docking with WeChat.

3. Others
    - Wrote an NPM module for Alibaba Cloud SMS (when the official did not support Node.js at that time).
    - Wrote a simplified version of the attribute allocation simulator for the game Fantasy Westward Journey, solving the problem that the existing attribute allocation simulator was outdated.
    - Wrote a third-party API encapsulation module (similar to the SMS system).

Professional Skills

1. Server-side
    - Node.js (ES6 and async/await), web frameworks such as Express and Nest.js (language and frameworks)
    - Golang language with Gin framework
    - Docker (deployment), Linux
    - Databases: MongoDB, MySQL, PostgreSQL
    - Message queues: RabbitMQ, MQTT, Socket.io, GCP Pub/Sub, Azure Service Bus
    - Nginx (load balancing)
    - Redis (caching)
    - GraphQL (data transfer framework)
2. Client-side
    - Backbone.js (component-based basic framework)
    - React, Angular
3. Tools
    - Git, familiar with the GitFlow process
    - VSCode (friendly to TypeScript)
    - Mocha, Postman (testing)
    - RESTful API
    - Markdown (documentation)
    - GitHub Copilot (AI code tool)

Educational Background

Shanghai Polytechnic University Bachelor's Degree Software Engineering Major English (CET-4)