

DUAN LI

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EDUCATION BACKGROUND

National University of Singapore

Aug 2023 - Jan 2025

Master of Computing

- GPA: 4.6 / 5.0

Southeast University

Aug 2018 - Jun 2022

Bachelor of Automation (Intelligent Information Processing)

- GPA: 3.76 / 4.00 (88.66 / 100) (Top 5%)
- National patent: Dental veneer model generation and thickness measurement method based on oral scanning point Cloud

PROFILE SUMMARY

Portfolio: <https://liduan2000.github.io>

Github: <https://github.com/liduan2000>

Linkedin: <https://www.linkedin.com/in/duan-li-14b0bb216>

PROFESSIONAL EXPERIENCE

Tencent Games – Level Infinite

May 2024 - Sep 2024

Software Development Engineer - Intern

- Responsible for the upgrade of the architecture for Tencent Games' overseas distribution account system. Evaluated various distributed frameworks (Consul, Zookeeper, Eureka, Etcd, etc.) and selected Consul for unified service registration, discovery, and health checks across CVM and Kubernetes environments.
- Revamped Tencent's load balancing and service discovery framework and configuration center agent, enabling real-time updates of Consul route tables to shared memory and integration with the configuration center agent. Handled solution evaluation, development and testing, deployed in CVM and Kubernetes environments.
- Developed a protection strategy for sensitive interfaces. Use mTLS HTTPS authentication on load balancers for TCC, AWS, GCP, and Azure to replace manual IP whitelisting. Test mTLS authentication, certificate revocation, periodic rotation, and multiple certificate chains.

Monetary Authority of Singapore

Dec 2023 - Jan 2024

Software Development Engineer - Intern

- Researched content management systems and developed a new Umbraco CMS microservice from scratch within the microservices-based MAS financial trading management platform, customized to deploy MS SQL Server. Provided essential content management functionality for other business modules in the system.

Intel Corporation

Jul 2022 - May 2023

System Software Development Engineer

- Constructed a Linux kernel space device management driver and a user space device simulator (C/C++). Led the formulation of schemes, designed architecture, implemented modules, and conducted integration testing. Ensured the stable operation of the driver on the next-generation Server CPU (GNR).
- Optimized data parallel algorithms in Intel's high-performance GPU architecture using SYCL (C++). Proposed an effective enhancement scheme for the next-generation PVC GPU compiler, reducing the running time of the original parallel algorithm on PVC GPU by nearly ten times.

Tencent Technology

Feb 2022 - May 2022

Software Development Engineer - Intern

- Contributed to developing microservice modules (Golang) for the Cloud Microenterprise Open Platform and Voice Assistant, using trpc-go for inter-service communication and integrating protocols for voice recognition, semantic analysis, and synthesis to deliver intelligent voice services.
- Refactored the sports open capability module from C++ to Golang services. Led the Blind Programmer Project, coordinating with company representatives to provide simplified API cloud development tutorials and gather feedback on blind support for the Cloud Microenterprise Open Platform.

Alibaba Group

Jun 2021 - Aug 2021

Software Development Engineer - Intern

- Developed and optimized a lightweight JavaScript compilation engine(C/C++) backend for the Taobao app, handling instruction bytecode and JIT compilation modules.
- Directed the development of the file clean-up module for online bypass repair, overseeing the processing of handheld local and platform-delivered files in real-time, aligning with dynamic business push data to achieve seamless hot repairs.

PROJECTS

OfferAI – Job Seeking Assistant

May 2024 - Present

Software Developer

- Link: <https://offer-ai.net>
- Tech stack: Python, Flask, MySQL, Redis, MongoDB, Kafka, Nginx, Docker, Websocket, JWT, OpenAI.
- A job-seeking assistant platform allowing users to register and utilize AI-based features such as resume enhancement, job recommendations, interview preparation, cover letter generation, and job applications. It also provides comprehensive job application tracking, job search, and matching functionalities.
- Responsible for backend development, REST API design, database schema creation, and platform promotion. Developed using Flask with MySQL for storage, Redis for caching and MongoDB for resume data. Also trained and fine-tuned custom models based on OpenAI technology.

Rate Corner – Course Rating Platform

Feb 2024 - Present

Project Leader

- Link: <https://ratecorner.org>
- Tech stack: Java, Spring Boot, Spring Task, Spring Cache, Mybatis, Redis, MySQL, JWT, Swagger, Nginx, React, Typescript.
- A course evaluation platform allowing students to register, provide course evaluations, view and filter other course reviews, and manage users' own assessments. Widely used by NUS students, the platform has garnered thousands of favourites on social media promotional posts.
- Responsible for task scheduling, solution implementation, prototype design, REST API design, database schema design, backend development, service deployment, and promotional activities.

Tianjiang Food Delivery Platform

Oct 2023 - Jan 2024

Project Owner

- Link: <https://github.com/liduan2000/sky-take-out>
- Tech stack: Java, Spring, Spring Boot, Spring Task, Mybatis, Redis, MySQL, JWT, Swagger, WebSocket, Vue.
- The project is a customized software product specifically designed for catering enterprises such as restaurants and hotels. It comprises a system management platform and a mini-program application on the client side.
- Merchant Management Platform: Enables merchants to manage employees, orders, store status, packages, categories, and menu items, with statistical and visualization features for restaurant data.
- User-Side Mini-Program: Allows users to browse dishes online, add items to the shopping cart, place orders, make payments, and request order status updates.

CORE COMPETENCIES

- Programming (Java, Python, C/C++, Golang, SQL)
- Backend Development (Spring Framework, Flask, Micro Services, Redis, Docker, Kubernetes, Service Mesh)
- Linux (Linux Kernel, Driver Development, Multi-thread, Bash, Git)
- Big Data (Hadoop, Spark, Kafka, Flink, MySQL, PostgreSQL)
- GPU (Architecture, Parallel Computing)

CERTIFICATIONS

- The second prize of National Computer Design Competition
- Special Prize of Jiangsu computer design competition
- Second prize of Southeast University computer design competition
- Puxin Elite Scholarship