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

Backend Development Engineer - Intern   **May 2024 - Present**

Tencent Game – Level Infinite, Singapore
- Responsible for the upgrade of the architecture for Tencent Games' overseas distribution account system. Evaluated various service meshes (Consul, Zookeeper, Eureka, Etcd, etc.) and selected Consul for unified service registration, discovery, and health checks across CVM and Kubernetes environments.
- Refactored Tencent's load balancing and service discovery framework and configuration center, 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.

Solution Architecture Engineer - Intern   **Dec 2023 - Jan 2024**

Monetary Authority of Singapore
- 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.

System Software Development Engineer   **Jul 2022 - May 2023**

Intel Asia Pacific research and development company Ltd.
- Constructed a Linux kernel space device management driver and a user space device simulator. 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. 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.

Backend Development Engineer - Intern   **Feb 2022 - May 2022**

Tencent Technology
- Contributed to developing microservice modules 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 Go 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.

Software Development Engineer - Intern   **Jun 2021 - Aug 2021**

Alibaba Group

- Developed and optimized a lightweight JavaScript compilation engine 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

Project Leader **Feb 2024 - Present**

Rate Corner

- Link: https://ratecorner.org
- Tech stack: Java, Spring Boot, Spring Task, Spring Cache, Mybatis, Redis, MySQL, JWT, Swagger, 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, interface design, database design, backend development, service deployment, and promotional activities.

Project Owner **Oct 2023 - Jan 2024**

Tianjiang Food Delivery Platform

- Link: https://github.com/liduan2000/sky-take-out
- Tech stack: Java, Spring, Spring MVC, Spring Boot, Spring Task, Spring Cache, Mybatis, Redis, MySQL, JWT, Swagger, WebSocket, Vue, and WeChat Mini.
- 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.

Project Leader **Sep 2021 - Jun 2022**

Segmentation Technology of Mandibular neural tube in CBCT

- Introduced an innovative algorithm grounded in 2D U-Net and 3D U-Net neural networks. Conducted scheme design, researched and implemented deep learning algorithms, leading software integration development.
- Achieved a segmentation algorithm accuracy of 99.7% and a 3D model overlapping rate of 85%, surpassing traditional algorithms by over 10%. It has been deployed and utilized at Nanjing Stomatological Hospital.

CORE COMPETENCIES

- Programming (Java, Python, C/C++, Golang, SQL)
- Backend Development(Spring Framework, Micro Services, Redis, Docker, Kubernetes, Service Mesh)
- Linux (Linux Kernel, Driver Development)
- Big Data (Hadoop, Spark, Kafka, Flink, Databases)
- GPU (Architecture, Parallel Computing)
- AI (Machine Learning, Computer Vision)

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