

# 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>

Rate Corner: <https://ratecorner.org>

## 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. Research on service meshes, ultimately utilizing Consul to achieve unified service registration and discovery, and custom load balancer on both CVM and Kubernetes architectures.
- Reformed Tencent's load balancer and service discovery framework to align with the account system's configuration center and overall architecture. Responsible for solution evaluation, development, functional and benchmark testing, ultimately deploying in both CVM and Kubernetes environments.

### Solution Architecture Engineer - Intern

Dec 2023 - Jan 2024

Monetary Authority of Singapore

- Researched content management systems and subsequently built a new Umbraco CMS microservice from scratch within the microservices-based MAS financial trading management platform, providing essential content management functionality for other business modules in the ecosystem.

### 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. 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 (Shenzhen) Co., Ltd.

- Engaged in the development of the Cloud Micro Open Platform and Voice Assistant, driving voice recognition, semantic analysis, and voice synthesis to ensure the provision of intelligent voice services to users.
- Contributed to the optimization and protocol integration of speech recognition, AI capability scheduling, speech synthesis distribution, skill allocation, and skill capability modules. Concurrently spearheaded a project for visually impaired programmers, liaising with relevant company executives.

### Software Development Engineer - Intern

Jun 2021 - Aug 2021

Alibaba Group

- Engaged in the development of a lightweight JavaScript compilation engine and its performance optimization, taking responsibility for instruction bytecode and JIT compilation.
- 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

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### Project Leader

**Feb 2024 - Present**

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- 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

- 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

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- 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

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- 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