# ZIYANG FENG

Software Engineer: Backend Dev. & Full Stack

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# **EDUCATION**

### Waseda University

Sep. 2020 – Expected Jul. 2022

Master of Engineering in Information, Production and Systems

### **Dalian University of Technology**

Sep. 2016 – Jul. 2020

Bachelor of Engineering in Computer Science & Technology

# ♣ INTERN EXPERIENCE

## Tencent Games - LightSpeed & Quantum Studios

Dec. 2020 - Present

- With ZeroMQ, implemented an asynchronous and high-performance C/C++ service framework based on the Router-Dealer prototype, which provides asynchronous and concurrent support for game AI training.
- Use Python to develop integrated tools, such as automatically pulling and matching the md5 value; Use deep learning inference frameworks NCNN and TNN for end-to-side acceleration and improve AI functions.

### Huawei Technologies Co., Ltd. - CloudBU

Jun. 2019 – Aug. 2019

- Use C to complete the monitoring and load balancing of the gateway traffic by the middleware, and understand the current limiting algorithm (leaky bucket, token bucket).
- Based on Python and Go to complete the IP location and script test tool, optimize the slow query of the client's IP in the database.

# PROJECT EXPERIENCE

### **RPC Framework(jiro-rpc-framework)**

Sept. 2020 – Oct. 2020

- Through dynamic proxy, with the Netty transmission architecture, implemented automatic registration with asynchronous non-blocking and heartbeat notification, implemented a variety of serialization methods.
- Service registration and discovery based on Nacos realizes automatic service cancellation and load balancing strategies (random distribution, balanced weighted round-robin, consistent Hash).

#### **Distributed Systems (MIT6.824-Labs)**

May. 2020 – Oct. 2020

According to MapReduce and Raft papers, understand and reproduce the core framework of the paper.

- Based on the MapReduce, implemented the master's distribution task and the worker's calculation task.
- Understand the Raft protocol and the heartbeat mechanism, such as the election and tenure, log synchronization and compression, member changes, and strong consistency.

# SKILLS

- Understand the operating system's memory management, TCP/IP protocol stack, and IO multiplexing.
- Skilled in Java, C++, Git and LATEX, familiar with network programming, had good programming style.
- Experienced in Spring, SpringBoot, MyBatis and other back-end frameworks, and basic design patterns.
- Experienced in Java concurrent programming, thread pool mechanism and the understanding of JUC library.
- Understand JVM memory distribution, class loader mechanism, garbage collection algorithm.
- Familiar with middleware such as Kafka, ElasticSearch and Thymeleaf template engine, and understand the three-tier MVC architecture.
- Familiar with Linux command shell and Docker & virtual environments, and CI/CD Tools.

## **P** ACADEMIC COMPETITIONS

National University Student Innovation Project Awarded in Robot-arm vision calibration	Mar. 2019
1st Prize Awarded in Liaoning Province University Student Computer Application Competition	Dec. 2018
1st Prize Awarded in National College Student Mathematics Competition Dalian Division	Jul. 2017
1st Prize Awarded in Dalian University of Technology "Ti" Cup Electronic Design Competition	Jun. 2017

# 冯子扬

求职意向: 后端开发 | 软件研发

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## ★ 教育背景

**早稻田大学** 硕士, 信息生产系统工学 **大连理工大学** 学士, 计算机科学与技术 2020.09 – 预计 2022.07 毕业 2016.09 – 2020.06

## ▲ 实习经历

### 腾讯游戏 - 光子工作室群 / 后台开发实习生

2020.12 - Present

- 以 ZeroMQ 为网络通信组件,根据 Router-Dealer 原型开发了异步高性能的 C/C++ 消息分发中台, 为游戏 AI 训练提供异步并发的支持,实现了动态接入服务节点和多种负载均衡策略。
- 使用 Python 开发集成工具类,如自动拉取下载并匹配 md5 值,处理腾讯云上 Docker 容器的创建销毁等操作;使用深度学习推理框架 NCNN 和 TNN 进行端侧加速,提高终端游戏 AI 功能体验。

### 华为技术有限公司 - 云核心网 / 软件开发实习生

2019.06 - 2019.08

- 使用 C 完成中间件对于网关流量的监控和负载均衡, 理解限流算法 (漏桶、令牌桶)。
- 基于 Python 及 Go 完成查找 IP 所在地和脚本测试工具,优化数据库中客户 IP 的慢查询。

# 👺 项目经历

### RPC 框架 (jiro-rpc-framework)

2020.09 - 2020.10

- 通过动态代理,实现自动注册服务;实现了多种序列化方式;实现 Netty 传输和通用序列化接口; 迭代项目的 IO 复用模型,从 BIO 到 NIO (select 和 epoll),实现了异步非阻塞和心跳通知机制。
- 基于 Nacos 的服务注册与发现,实现自动注销服务和负载均衡策略(随机分发,平衡加权轮询,一致性 Hash)。

### MIT6.824 分布式系统 (MIT6.824-Labs)

2020.05 - 2020.07

根据 MapReduce, Raft 等经典论文, 理解并复现其论文核心框架。

- 基于 MapReduce 算法, 实现了 master 的分发任务以及 worker 的计算任务, 实现了一个 word-counter。
- 理解 Raft 协议正常工作和心跳机制,如选主与任期,日志同步和压缩,成员变更,强一致性。

# ☎ 个人能力

- 理解操作系统的内存管理机制,熟悉 TCP/IP 协议栈,网络编程以及 IO 多路复用。
- 熟悉 Java、C++、Python、Go, 熟悉基本数据结构和算法, 有良好的编程风格。
- 理解 ArrayList、HashMap、ConcurrentHashMap 等 Java 类库的基本底层原理。
- 熟悉 Java 并发编程, 多线程和线程池机制以及 JUC 类库的使用, 理解基本的设计模式。
- 使用 Spring、SpringMVC、SpringBoot、MyBatis 等框架,理解 IOC 以及 AOP 思想。
- 理解 JVM 内存分布, 类加载机制, 垃圾回收算法和常用 GC 调优策略。
- 理解数据库的 ACID 原则和三大范式,熟悉 MySQL 的存储引擎、事务及隔离级别、锁、索引, Redis 的数据类型、过期和淘汰策略、缓存穿透和雪崩、分布式锁。
- 熟悉使用 Kafka, ElasticSearch 等中间件以及 Thymeleaf 模板引擎,理解 MVC 三层架构。
- 熟练使用 LATEX, MarkDown, Git 等工具,理解 Docker 各组件及其命令,了解 CI/CD 等 DevOps。

### ♥ 学术竞赛

国家级大学生创新项目机器人手臂视觉标定2019.03一等奖 辽宁省大学生计算机应用大赛2018.12一等奖 全国大学生数学竞赛大连赛区2017.06一等奖 大连理工大学 "Ti" 杯电子设计大赛2017.05