# ZIYANG FENG

Software Engineer: Backend Dev. & Full Stack

**■** fuujiro@qq.com · **८** (+86) 155-2489-2259 · **% ○** https://github.com/fuujiro

## **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

## A INTERN EXPERIENCE

### (-) Alibaba Cloud - Computing Platform - DataWorks

Apr. 2021 – Present

- Using the SofaArk framework and customizing the class loading and class isolation mechanism, and the reflection mechanism is used to realize plug-in initialization, and service registration and reference.
- Using the Quartz framework, through its timing task scheduling, the heartbeat failover mechanism is implemented to ensure the high availability of the middle station and to achieve asynchronous high concurrency,

### Tencent Games - LightSpeed & Quantum Studios

Dec. 2020 – Apr. 2021

- 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 load balancing of the gateway, and the limiting algorithm (leaky bucket, token bucket).
- Based on Python and Go to complete the IP script test tool, optimize the slow query of the client's IP.

# 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

- 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.

# **Ç**<sup>®</sup> 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.
- Familiar with Linux command shell and Docker & virtual environments, and CI/CD Tools.

## **T** 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

# 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

### (-) 阿里云 - 计算平台 DataWorks / 后台开发实习生

2021.4 - 至今为止

- 利用 SofaArk 框架,对于类加载、类隔离机制的定制,使得各插件互相隔离,利用反射机制实现插件初始化,和服务注册及引用,打造了一个热部署的 hook 锚点机制的插件化管控中台。
- 使用 Quartz 任务调度框架,通过其定时任务调度,实现心跳的 failover 机制来保证中台的高可用;使用线程池机制来实现异步高并发,数据库使用双机房主从备份来保证高可用。

### ₿ 腾讯游戏 - 光子工作室群 / 后台开发实习生

2020.12 - 2021.4

- 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,实现服务注册和引用,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。
- 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

- 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,IO 多路复用,和常用设计模式。
- 熟悉 SpringBoot、SpringMVC、MyBatis 框架,理解 MVC 三层架构,理解 IOC 和 AOP 思想。
- · 熟悉 Java 并发编程,多线程和线程池机制以及常用 JUC 类库的底层原理。
- 理解 JVM 内存分布, 类加载、类隔离机制, 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 LATEX, MarkDown, Docker, Git 等工具。

## ♥ 学术竞赛

国家级大学生创新项目 机器人手臂视觉标定 一等奖 辽宁省大学生计算机应用大赛

2019.03

2018.12

一等奖 全国大学生数学竞赛大连赛区