XIANGRU YAN

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Objective

Seeking for 2022 Software Engineer Summer Intern

Education

University of Southern California   **Aug. 2021 – May. 2023(expected)**
Master of Science, Computer Science   *Los Angeles, CA*

Nanjing University   **Sep. 2016 – Jun 2020**
Bachelor of Science, Statistics 3.8/4.0   *Nanjing, China*

Working Experience

Momenta(Top autonomoud driving unicorn), H&D Map Team   **Jan, 2021 – Jun, 2021**
Software Engineer Intern   *Beijing, China*
- Delivered 50+ features/bug-fix for Mojito(Momenta's distributed task orchestration system with **200+** software engineer/machine learning engineer users and **200,000+** concurrent tasks per hour.) utilizing **Golang** and **Python**.
- Initialized and launched the back-end part of an OSM Data Processing Platform with **Golang**.

Nanjing Data & Decision Analytics Institute   **Jul, 2020 – Sep, 2020**
Software Engineer Intern   *Nanjing, China*
- Initiated and implemented a data analysis platform with **Flask**, **HTML&CSS&JavaScript** and **MySQL** for data analysts to utilize.
- Developed a computer vision and deep learning based defect detecting system for aluminum heat-dissipating plate with **OpenCV** and **Pytorch**.

Selected Projects

Mojito   **Jan, 2021 – Jun, 2021**
- Developed APIs to dynamically distribute cluster resources using **Kubernetes-Job** and coordinated the work with **20+** engineers thus saved **60%** cluster resources.
- Improve the job-task function through saving job records in **PostgreSQL**, automatically cleaning succeeded and failed jobs, restricting the concurrent job numbers and adding unit-tests and showing a report on the **Azure Devops** dashboard.
- Refactored and optimized the task-polling worker to boost user experience and error tracking capability.
- Solved a technical bottleneck of sustaining a high volume of concurrent requests by leveraging **Data Warehouse** to save intermediate data.
- Originated data visualization dashboards based on **Grafana** and **Prometheus** to facilitate users to check and filter the data of CPU&Memory cost, start&end time and so on.
- Collaborated with operation engineers to implement a real-time warning system to send messages to related users by **EnterPrise WeChat** when errors such as heartbeat failed monitored by **Kibana** and zombie processes appear.

OSM Data Processing Platform   **Apr, 2021 – Jun, 2021**
- Designed and implemented APIs to realize functions including uploading, downloading, merging, deploying and destroying OSM data with **Gonic**, **Goroutine** and **Gorm**. to facilitate users to produce maps fast and conveniently.
- Packaged the whole set of code into a **Docker image** to make it a **MicroService** to run on cluster.

Spike System   **Nov, 2020**
- Designed and launched an order spike system based on **Java**, **SpringBoot** and **Mybatis**.
- Applied a distributed lock on account of **Redis** and handled situations like cache penetration, hotspot invalid and cache avalanche.
- Integrated **Sentinal** to resolve the problem of excessive concurrency by rate limit, flow control and circuit-breaker.

Technical Skills

Programming Languages: Java, Golang, Python, C/C++, JavaScript, SQL, Shell Scripts
Frameworks: Git, Spring, SpringBoot, Mybatis, Docker, Kubernetes, Linux, Azure Devops, Pytorch
Databases: MySQL, PostgreSQL, Redis, RocketMQ

Honors

Outstanding Graduate of Nanjing University   **2020**