Xuanyi Li

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EDUCATION

The Ohio State University	**Columbus, United States**
Master of Science in Computer Science; GPA (3.97/4.0)	08/2017 – 05/2019
Zhejiang University	**Hangzhou, China**
Bachelor of Engineering in Automation; GPA (3.97/4.0); Ranking (4/144)	09/2013 – 07/2017

TECHNICAL SKILLS

Programming Language: Go, Java, C, Python, SQL, X86 Assembly
Framework and Tool: Spring Boot, Mybatis, Redis, RocketMQ, Git, Keras, Postman, LaTeX
Distributed System: Remote Procedure Call, Coordination Service, Cache, Message Queue

WORK EXPERIENCE

Mlab: Unified Intelligence Platform	**Alibaba**
Back-end Engineer Intern	05/10/2018 – 07/25/2018

- Built an internal platform to accelerate AI with **Spring Boot** and Alibaba distributed middlewares. Empowered the coupon team to reduce 1 week for tweaking recommendation algorithm.
- Hooked up sophisticated offline training platform to other streams by exploiting **Java** annotation, reflection and design patterns (Builder, Factory and Template Method).
  - Utilized Apache **HttpClient**, state machine and optimistic lock to monitor training state.
  - Generated dynamic front-end forms of algorithm parameters with Google **Gson**.
- Delivered trained models to corresponding client services with **Diamond** (durable config manage system) and **Tair** (distributed cache).

Deep Learning Internship	**Singapore University of Technology and Design**
Research Assistant in NLP Lab (published a paper in DSAA)	07/03/2016 – 08/31/2016

- Ameliorated classical multi-task deep learning model with **Keras** to detect the sentiment polarity, reviewer identification, subjectivity/objectivity of each text simultaneously.
- Crawled 75,000 rotten tomato reviews with **Python**. Set aside CNNs to capture exclusive features and appended gated control unit to filter noise, improving accuracy by 0.47% and 1.10% respectively.

PROJECTS

Multiplayer Tictactoe with Stream, Multicast and Failover   01/2019 – 04/2019

- Developed the multithreading server in **C** to monitor game resources and handle various types of requests from multiple clients (New Game, Reconnect, Move, End) in the TCP thread, process multicasting requests for failover in the UDP thread; Used **select()** to deal with multitasking.
- Built the client to multicast for a new server or connect with the backup server while noting that the original server crashes, seamlessly resume the game from last move.

Mini Seckill System   02/2018 – 03/2018

- Developed back-end of the seckill system with **Spring Boot** to implement the transactional task consisting of order generation and inventory subtraction, achieving 6K QPS.
- Implemented the CRUD interface at DAO tier with **Mybatis** and tested with JUnit.
- Integrated **log4j** and Spring **AOP** to intercept each http request at the controller tier.
- Used **Redis** to reject overselling requests. Combined **RocketMQ** with local message table to implement the distributed transaction in terms of the choreography-based saga pattern.

Selected Infrastructure Projects   01/2018 – 05/2018

- **Multi-thread Programming:** Used Lamport Clock and Java **ReentrantLock** to simulate a restaurant. Regarded diners and cookers as threads, and tables, machines and various food as shared resources.
- **Lisp Interpreter:** Implemented internal function of Lisp by **Java** to value arguments, bind them to corresponding formal parameters and recursively evaluate function body.
- **Parallel Computing:** Applied tiling strategy, loop unrolling over 2 dimensions and shared memory in GPU for transposed matrix multiplication acceleration, achieving 26.6 GFLOPS.

PUBLICATION

Xuanyi Li, Weimin Wu, Hongye Su. Convolutional Neural Networks Based Multi-Task Deep Learning for Movie Review Classification. In proceedings of the 4th IEEE DSAA. Tokyo, Japan, 10/2017.