Xuanyi Li

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EDUCATION

Ohio State University **Columbus, United States**
Master of Science in Computer Science; GPA (3.96/4.0) 08/2017 – 05/2019

Zhejiang University **Hangzhou, China**
Bachelor of Engineering; GPA (3.97/4.0); Ranking (4/144) 09/2013 – 07/2017

TECHNICAL SKILLS

Proficient: Java, Spring Boot, MySQL, Mybatis, Git, Keras **Familiar:** Python, C, Redis, AJAX, TEX
Alibaba Middlewares: RocketMQ(JMS), HSF(RPC), Tair(Cache), Diamond(Persistent Config Center)

WORK EXPERIENCE

Mlab: Business Intelligence Platform **Alibaba**
Backend Engineer Intern 05/10/2018 – 07/25/2018

- Developed a business intelligence platform by Spring Boot, aiming to automate all development steps for machine learning products. Our platform is accessed by Taobao seller union activity whose DAU is 10 million, reducing the development cycle to 1 week.
- Implemented the offline training module, assisted in sql generation and online model deployment.
- Adopted three design patterns, namely Builder, Abstract Factory (done by Java Enumeration) and Template Method, to work out the node diversity within each algorithm template, mainly due to different parameter SERDER (serialization and deserialization) and frontend form exhibition.
- Implemented exclusion strategy in Gson with Java annotation for self-defined SERDER.
- Assembled parameters of all nodes belong to a certain algorithm template and generated a http post request by Apache http client to trigger training on PAI (Alibaba offline training Platform).
- Cooperated to develop the model transfer module: Mlab server swarm read offline model from PAI, persist it to MySQL, cache customized online model to Tair and push the corresponding version object, containing extra split ratio for A/B testing, to Diamond Server. Client threads asynchronously listen to the version change and poll the latest model from Tair for real time prediction.

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 basic multi-task deep learning model with Keras to detect the sentiment polarity, reviewer identification, subjectivity/objectivity of each text simultaneously.
- Crawled 75, 000 reviews from rotten tomato with Python. Inserted CNN for each task to capture exclusive features and gated control unit to filter noise, improving accuracy by 0.47% and 1.10% respectively.

SELECTED PROJECTS

Micro Seckill System 02/2018 – 03/2018

- Responsible for backend engineering with Spring Boot: countdown before the seckill activity (purchase merchants in a short time); avoid overselling and redundant purchase on the same item.
- Used Mybatis to implement the interface at DAO tier, namely CRUD operation.
- Integrated log4j and Spring AOP to intercept each http request at SpringMVC controller Layer.
- Combined two cache refreshing strategy on Redis, namely timeout eviction and initiative update, to ensure the eventually consistency between cache and database.
- Adopted the transaction compensation pattern with RocketMQ to achieve high concurrency and ensure transaction consistency involving order generation and inventory subtraction.
- Tested the concurrency performance with JMeter, achieving 1000 QPS.

Infrastructure Related Project 01/2016 – 05/2016

- **Multi-thread Programming:** Applied 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:** Used 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