Xinbo(Justin) Xia

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EDUCATION

University of Southern California, Los Angeles, CA — Expected Graduation: May 2021
Master of Science, Electrical Engineering — GPA: 3.45
Member of Blockchain@USC

University of Illinois, Urbana-Champaign, Champaign, IL — Graduated: May 2019
Bachelor of Science, Materials Science and Engineering — Major GPA:3.40
Minor: Electrical and Computer Engineering — Minor GPA:3.65
Honors: Dean's List 2017-2018 (Junior Year)

TECHNICAL SKILLS

Programming Languages: Java, Python, JavaScript, C++, C, Golang

Back-End development: Spring Boot, Spring Security, Spring MVC, Spring Cloud, Flask, MyBatis RabbitMQ, Nginx, WebSocket, Docker(container), kubernetes(deployment)

Front-End Development: JavaScript, HTML, CSS, React, Vue, jQuery, Axios

Database, Cloud, ML: MySQL, PostgreSQL, Redis, MongoDB, AWS, MPI, Hadoop, Spark, TensorFlow

PROJECT

Full-Stack E-Mall Website development, Los Angeles, CA — 09/2020 – 10/2020

- This is an E-Mall website and is functionally similar to Amazon. Front-End technologies are React JS and JavaScript. Multiple functions such as shopping cart, checkout, and payment processing are fully built.
- Used Redux (data layer concept) to implement shopping cart and subtotal so that they can dynamically update. Used Stripe API and Axios to complete card payment functionality and host can manage payment information through Stripe account.

Human Resources Management System, Los Angeles, CA — 06/2020 – 08/2020

- Designed with idea of front-back-seperation. For back end, Spring framework are implemented and Spring Security are used to control user access authorities. Data is imported from MySQL with help of MyBatis. Created a mail server for management system with RabbitMQ and live chat with WebSocket.
- For front-end, used Vue for framework and ElementUI for user interface layout. Server requests and exceptions are processed by Axios and user login information is stored in Vuex.

E-Mall Seckilling shopping System, Los Angeles, CA — 07/2019 – 08/2019

- Designed this E-Mall system for handling high concurrency of ordering requests. Front-End UI is built with Bootstrap, jQuery, Thymeleaf and Back-End with Spring framework, MyBatis and MySQL.
- To achieve high concurrency, static information is stored into Redis to reduce chances of visiting MySQL database. Used RabbitMQ to implement asynchronous ordering requests. QPS increases 5 times after these optimizations.

COURSEWORK

USC EE542: Internet and Cloud Computing, Los Angeles, CA — Fall 2020

- Gained hands-on experience on creating MPI, Hadoop and Spark programs running on AWS. Built several machine learning models using PySpark and trained models on AWS. Achieved accuracy over 90%.
- Participated in one of the Kaggle machine learning competition called MoA prediction. Implemented multiple machine learning algorithms and optimized the result by doing model integration.

USC CSCI402: Operating System, Los Angeles, CA — Fall 2020

- Gained deep understanding of operating system such as multithread operation, thread safety, locks, VFS and VM. Implemented Weenix Operating System by implementing all above kernel functions from scratch.

USC CSCI570: Advanced Algorithm Analysis, Los Angeles, CA — Spring 2020

- Mastered computer scientist mindset for dealing with algorithms such as greedy, graph, dynamic programming, divide-and-conquer, network flow, NP problem and time-space complexity trade-off.

RESEARCH ACHIEVEMENT

Prof. Robert Maass's Research Group, Champaign, IL — June 2018 - May 2019

- Processed and visualized raw data with Matlab and helped tutor published an academic paper on Scripta Materialia.