Zhiyuan Ouyang

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EDUCATION

CARNEGIE MELLON UNIVERSITY
Master of Science
in Computer Engineering
Dec 2016 | Pittsburgh, PA

KATHOLIEKE UNIVERSITEIT LEUVEN
Bachelor of Science
July 2015 | Leuven, Belgium
Magna Cum Laude

BEIJING JIAOTONG UNIVERSITY
Bachelor of Engineering
July 2015 | Beijing, China
Siyuan Honor Program

SKILLS

LANGUAGES
Proficient
Java • Python • Ruby
Basic
Shell • JS • CSS • HTML
DATABASE
SQLite • MySQL • PostgreSQL • HBase • Cassandra • MongoDB • Neo4j • H2
FRAMEWORK
Kafka • Hadoop • Fluentd • Dropwizard • Hive • Impala • Storm • Spark • Django • Grafana • Elasticsearch
TOOL
Docker • Maven • Git • Jenkins • Travis-CI • Ansible

RELEVANT COURSES

CARNEGIE MELLON UNIVERSITY
• Database Application(15615)
• Service Oriented Computing(18655)
• Distributed System(15640)
• Cloud Computing(15619)
• Machine Learning(10701)
• Computer Vision(16720)
• Intro. to Computer System(15513)
• Software Construction(15214)
• Java Smart Phone Development(18641)

KATHOLIEKE UNIVERSITEIT LEUVEN
• System Software
• Software Development
• Data Communication and Computer Networks
• OOP and Databases

PROFESSIONAL EXPERIENCE

SOFTWARE ENGINEER 03/2017 - Present | Oracle Corp.
Oracle Cloud Infrastructure Team
Implemented and set up large scale data pipeline/data platform for log and metric data across Oracle Cloud Infrastructure including data collection, data transferring, data transforming, data storaging, data monitoring, data visualization and data analyzing modules

- Implemented multiple data transforming and processing modules in pipeline with Fluentd framework in ruby, including input/output/filtering/formatting sub-modules for different types of data source and data sink such as http/kafka/file system/database
- Implemented several data collecting applications in pipeline in ruby/java for clients and endpoint machines, collecting logs and metrics from application/VM/disk
- Helped set up Kafka clusters for data transferring queue and multiple databases such as Cassandra/Hbase, implemented multiple applications to receiving/processing/storing/providing data behind them in java
- Integrated prometheus across modules inside the pipeline, exporting metrics to Grafana for data monitoring, built dashboards for Grafana
- Helped set up CI/CD, automated and simplified development and deployment processes with Jenkins/Ansible/Docker

COURSE PROJECTS

REMOTE FILE OPERATION PLATFORM 01/2016 - 02/2016 | CMU
Distributed System Project
Implemented a platform to support concurrent file operation RPC in distributed clusters including a client-side application to recognize command, compress, encode and send via TCP and a server that decodes and request and do file operations (Programming in C)

- Implemented a client application, handling more than 10 input file operation commands such as "ls", "mkdir", encoding and transmitting to server with TCP protocol and a concurrent server to handling the file operation requests from multiple clients through TCP and do file operations on server side

FILE CACHING SYSTEM 02/2016 - 03/2016 | CMU
Distributed System Project
Implemented a concurrent proxy between client and server to support high bandwidth file fetching and updating request (Programming in JAVA)

- Implemented a concurrent proxy, handling file fetch and update requests from multiple users and communicating with server, made use of LRU as proxy caching with 'write around' invalidation policy to lower latency, communicated with server as 'check on use' fetching policy and achieve consistency by 'last writes win'

ELASTIC CLOUD PLATFORM 03/2016 - 04/2016 | CMU
Distributed System Project
Implemented a elastic cloud platform for shopping scenario with auto-scaling mechanism (Programming in JAVA)

- Implemented an elastic cloud to handle shopping requests, autoscaling process-simulated virtual machines based on the load of request with a flowmeter to monitor input and output rate of flow in real-time, feeding each virtual machine with a load balancer in round-robin