

Zhiyuan Ouyang

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EDUCATION

Carnegie Mellon University

Master of Science in Computer Engineering

Pittsburgh, PA

Dec 2016

Relevant Coursework Database Application(15615), Distributed System(15640), Cloud Computing(15619), Machine Learning(10701), Computer Vision(16720), Introduction to Computer System(15513), Principles of Software System Construction(15214), Service Oriented Computing(18655), Java Smart Phone Development(18641)

Katholieke Universiteit Leuven

Bachelor of Science, Magna Cum Laude

Leuven, Belgium

July 2015

Relevant Coursework System Software, Software Development, Data Communication and Computer Networks, Object Oriented Programming and Databases

Beijing Jiaotong University

Bachelor of Engineering, Siyuan Honor Program

Beijing, China

July 2015

Relevant Coursework High Level Language Programming, Fundamentals of Computer, JAVA Programming

SKILLS

- **Languages:** Java, Python, Ruby, Shell, SQL, etc.
- **Databases:** MySQL, PostgreSQL, Hbase, Cassandra, MongoDB, Redis, Memcached, Neo4j, etc.
- **Frameworks:** Kafka, Fluentd, Spark, MapReduce, JUnit, Cucumber, Dropwizard, etc.
- **Tools:** Jenkins, Git, Kubernetes, Docker, Grafana, Prometheus, Hive, Impala, Hue, Oozie, Elasticsearch, Superset, MetaBase, etc.

PROFESSIONAL EXPERIENCE

Oracle Corporation

Software Engineer, Oracle Cloud Infrastructure Team

Redwood Shores, CA

March 2017 - Present

Focused on data infrastructure, implemented and built up a multi-layer large scale data pipeline/data platform for log/metric/business data across Oracle Cloud Infrastructure, including Collection, Transferring, Transforming, Storing, Analytics, Visualization layers and helped set up and completed the operation pipeline including Continuous Integration, Continuous Testing, Continuous Deployment, Continuous Monitoring process

- **Data Collection :** Designed and Implemented multiple data collection modules for collecting data/metrics/logs from various user endpoints/VMs, doing filtering/pre-processing and emitting to various destinations, using Java/Ruby/Fluentd
- **Data Transferring :** Helped set up the Kafka clusters and Implemented modules in Java for transferring and distributing data/metrics/logs to various data sinks
- **Data Transformation :** Implemented transformation/processing utilities for extracting the value of data based on different use cases in Java/Python to be processed by MR/Spark clusters and wrote shell scripts in Oozie for scheduling
- **Data Storage :** Implemented data accessing modules in Java for Cassandra/Hbase backend
- **Data Analytics :** Wrote SQL for some analytics tasks to extract the value of data for clients using Hive/Impala
- **Data Visualization :** Implemented Web server and provided REST API for data visualization from Cassandra/Hbase backend
- **Continuous Integration :** Implemented Jenkinsfile for multiple modules in datapipeline to enable the continuous-integration process
- **Continuous Testing :** Implemented testing scripts for modules in datapipeline using multiple test frameworks JUnit/Ruby Unit Test/Cucumber
- **Continuous Deployment :** Helped created Dockerfiles/Helm Charts for continuous-deployment with Kubernetes clusters
- **Continuous Monitoring :** Integrated Prometheus exporter in modules in data pipeline and helped set up the Grafana dashboard for monitoring

COURSE PROJECTS

Carnegie Mellon University

Elastic Cloud Platform

Pittsburgh, PA

March 2016 - April 2016

Implemented a elastic cloud platform for online shopping system with auto-scaling mechanism in Java

- Designed the scaling logic and implemented the elastic cloud with a flow-meter to monitor the total load of requests, a load-balancer to balance the load of each instance and a load-meter to monitor the load of each instance

Carnegie Mellon University

File Caching System

Pittsburgh, PA

Feb 2016 - March 2016

Implemented a concurrent proxy to support high throughput and low latency file read/write requests

- Implemented a proxy to handle file read/write requests from multi-tenants concurrently, caching hot-spots in limited resources for low-latency and high throughput. Implemented the caching mechanism with LRU eviction policy, 'write around' invalidation policy, 'check on use' fetching policy and 'last writes win' consistency policy