Yaming Zhang

Mountain View, CA zhangyaming0726@gmail.com yamingzhang.com 857-437-2701

EDUCATION

Northeastern University, *Boston, MA* *Dec 2023*
Master of Science in Computer Engineering

University of California Riverside, *Riverside, CA* *Jun 2020*
Graduate Preparation Program in Computer Science

Xidian University, *Xi'an, China* *Jun 2019*
Bachelor of Science in Computer Science

SKILLS

Languages: Go, Python, Java
Frameworks: gRPC, Kafka, Spark
Databases: MySql, Redis, Cassandra, Elasticsearch
DevOps: Jenkins, AWS, ELK Stack, Prometheus

WORK EXPERIENCE

Moveworks, *Mountain View, CA*
Software Engineer *Jan 2024 – Present*

- Worked in **Data Platform** on Funnel Tracing, Data Offboarding, etc.

Electronic Arts (EA), *Redwood City, CA*
Software Engineer Intern *May 2023 – Aug 2023*

- Designed the **Java-based OOP** model for Player Lifecycle Graph, a serialization model to manage players' states and unified messages, resulting in a **30% cost reduction** by eliminating the need for customizing **Braze**.
- Developed a **Flink** topology for **Kafka** streaming PIN events execution, enabling efficient retrieval of lifecycles from **Redis**, reading player profiles from **ScyllaDB**, and executing the corresponding lifecycles.
- Leveraged EADP's **Data Query Language (DQL)** to extract data from unstructured **JSON** events, evaluate boolean conditions, and execute action scripts.
- Built a web application with **React** and implemented APIs with **Spring Boot**, empowering campaign managers to draw lifecycle flowcharts and retrieve players' current states in games.

Tencent, *Beijing, China*
Software Engineer *Jul 2020 – Aug 2022*

- Developed **Microservices** on **Go** using **gRPC** with logs on **ELK**, monitoring on **Prometheus**, asynchronous pipelines to **Kafka**, etc, achieving a **25% improvement** in interface response time and a **50% reduction** in production debug time.
- Established automated **CI/CD** pipelines that enhanced service security by seamlessly integrating **Unit Tests** during CI, while also enabling efficient rollback on **Tencent Cloud Kubernetes**.
- Wrote customized codes in the secondary development of **Superset** to create a dashboard displaying user usage data of Tencent services by preprocessing and visualizing data with **Pandas** and **ECharts**.
- Analyzed the traffic data of Tencent news using **Scala Spark** and **PySpark** to promote automatic advertising and personalized recommendation.

The Big-Data Lab at UCR, *Riverside, CA*
Research Assistant *Aug 2019 – Jul 2020*

- Leveraged the power of **Scala** and **Spark** to design user-defined functions for geometry calculation, enabling the provision of diverse and flexible APIs that empower developers to generate and manipulate geometries with ease.
- Utilized the **Hadoop** file API to efficiently parse records from the **OpenStreetMap** PBF file, enabling extraction of OSM entities for subsequent **Big Data Processing Pipelines** on **AWS EMR**.
- Generated the satellite image of corresponding OSM Vector data using **Beast Raptor** spatial-join for spatial machine learning and AI activities.

RESEARCH PROJECT

Beast *Aug 2019 – Present*

- Developed the functions of outputting and compressing the .kml file of geospatial datasets in **Java** to strengthen the I/O module, a basic module of **UCR-STAR**.
- Optimized functions of Well-known text and Well-known binary conversion in Geolite computational geometry library for the benchmark of the performance between **Esri**, **JTS** and Geolite API.
- Increased the granularity of **Raptor** join from pixels to tiles to improve the performance of spatial join for large data.

PUBLICATIONS

Samriddhi Singla, **Yaming Zhang**, Ahmed Eldawy (2022). OSMX: Spark-based Geospatial Data Extractor from OpenStreetMap and Satellite Images. International Conference on Advances in Geographic Information Systems.

Ahmed Eldawy, ..., **Yaming Zhang** (2021). Beast: Scalable Exploratory Analytics on Spatio-temporal Data. ACM International Conference on Information and Knowledge Management.

Yaming Zhang, Ahmed Eldawy (2020). Evaluating Computational Geometry Libraries for Big Spatial Data Exploration. International ACM SIGMOD Workshop on Managing and Mining Enriched Geo-Spatial Data.