

Xiaoxiao (George) Li

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SUMMARY

Production experience with systems serving > 25M users:

- Java - Microservice with Spring boot
- Kafka - Event sourcing and ELK
- AWS RDS Mysql and Aurora - schema design, slow query, concurrency, and replication
- TiDB - See my contribution to the [Tidb in Action](#) ebook (in Chinese)
- ElasticCache - cluster mode with HA

Production experience:

- Python - tooling, testing
- AWS - EKS, Elasticsearch, and
- SRE - terraform, consul, vault

PROFESSIONAL EXPERIENCE

Platform Engineer

Paytm Labs/Paypay

Toronto, ON (60%) and Tokyo, Japan (40%) — June 2017-Present

Selected impacts:

1. Migrated payment service from Aurora to tidb. This service is on the most critical path of > 25M users
 - a. My roles include
 - i. The point of contact with pingcap on behalf of paypay and paytm.
 - ii. Owner of migration plan, execution and 50% of data consistency check
 - b. Coordinated teams in 3 countries to finish the migration against a hard deadline during the outbreak of COVID-19
 - c. After migration, the service on prod handles 22k QPS with p99 < 500ms. See our presentation in [TiDB DevCon](#)
2. Migrated the transaction history service from Aurora to Tidb. This service supports part of the app home screen (> 25 M users) and a first-level page.
 - a. My roles include
 - i. Owner of migration code and service code on half of paytm
 - ii. The point of contact with pingcap on behalf of paypay and paytm
 - b. After the migration, the service on prod handles peak 15K QPS during the big promo day without any SEV.
3. Out of my own initiative, gathered infrastructure usage data, won management support, and pushed teams to scale down over-provisioned resources
 - a. Exercised this process twice in two different quarters.
 - b. Reduced the infrastructure bill by \$150k per month combined. [See my blog post for my methodology](#)
4. Dive into a sister team's code base to fix a SEV 1 that manifests only during high traffic. (No one was able to solve it so I offered my help)
 - a. Traffic at 150 TPS, and this bug causes 50% of users to see wrong money amount paid
 - b. Mitigation provided in 6 hours. Complete solution provided in the next 10 days.

Software Engineer

MongoDB

New York, NY — Jan 2017- May 2017

Billing and alerting system for MongoDB cloud

Platform Engineer

Paytm Labs

Toronto, ON — Sep 2015-Dec 2016

Selected Impacts:

1. Create Kafka-Samza pipeline that handles stream joins (1-1 and 1-n), stream enrichment, reprocessing, and out of order arrival.
 - a. Incoming message rate at 15 - 30 mil/day.
 - b. This joined stream forms the base of other real time analytic streams. The results are projected 24/7 next to CEO's desk
 - c. This 1 man project takes 6 months from inception to completion. I own everything from design to operational excellence.

Software Developer, Team Lead

Varicent, an IBM company

Toronto, ON — Aug 2012-Aug 2015

Software Developer

Varicent Software

Toronto, ON — May 2010- Aug 2012

Selected Impacts:

1. To satisfy the performance SLA of a \$1+ mil/year deal with a household name, migrate our cashcow product's calculation engine from SQL Server to IBM Netezza data warehouse.
 - a. Data size > 200 mil, storage size > 3TB.
 - b. Reduced calculation run from days on SQL Server to < 4 hours on Netezza
 - c. Lead the 3 person project team for 2 years from the inception to customer closing the deal
2. Building from scratch a domain specific process engine with Apache Kafka, Apache Samza, Scala.
[Showed my work to Toronto Hadoop User Group](#)

HONOR

- Qualified for Google Code Jam round 2 2018
- IBM Outstanding technical achievement award 2014

EDUCATION

University of Waterloo

2005-2010

Bachelor of Mathematics, Co-op, Computer Science with C & O Minor

Graduated with Distinction