

Xiaoxiao (George) Li

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SUMMARY

Java - microservice code with Spring boot

Python - tooling, testing, and competitive programming

Kafka - Event sourcing and ELK

AWS - EKS, RDS Aurora, Terraform

Competitive programming - qualified for Google Code Jam round 2 2018. See my atcoder and codeforces profile for more details (coming out of hiatus)

PROFESSIONAL EXPERIENCE

Platform Engineer

Paytm Labs/Paypay

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

Selected impacts:

1. Migrated the payment service DB from Aurora to Tidb on EKS, and own the stability of Tidb and data integrity of 250 mil records.
 - a. This service displays part of the app home screen (> 2 M MAU). After the migration, it handles peak 15K QPS during the big promo day without any SEV
 - b. 2 man project lasting 4 months. SRE part is executed by the Japanese team with my supervision.
2. Out of my own initiative, gathered infrastructure usage data, won management support, and pushed teams to scale down over-provisioned resources
 - a. Completed in 2 weeks, and reduced the infrastructure bill by \$100k per month.
 - b. [See my blog post for my methodology](#)
3. 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.
4. During the big promo day, ensured the stability of Paypay's kafka clusters. Assigned this task only 3 days before the big day.
 - a. Peak with 4-5 mil msg/min during the promo. No Kafka process crashed.
 - b. Provided mitigations that reduced the overall message size by 30% before the day
 - c. Discovered 2 critical config problems with prod kafka setup

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
 - d. This project won me IBM Outstanding Technical Achievement in 2014
2. Building from scratch a domain specific process engine with Apache Kafka, Apache Samza, Scala.
[Showed my work to Toronto Hadoop User Group](#)

EDUCATION

University of Waterloo
2005-2010
Bachelor of Mathematics, Co-op, Computer Science with C & O Minor

Graduated with Distinction