

# Qichao Chu

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## EXPERIENCE ◇ Staff Software Engineer, Tech Lead Manager (TLM)

01/15/2018 - Current

Uber, Kafka - Platform Engineering

Dec 2020 - Now | Sunnyvale, CA

Led Uber's trip-critical Kafka Messaging platform (Kafka Consumer Proxy/uForwarder, Kafka REST Proxy, uReplicator (Uber's MirrorMaker), accountable for reliability, on-call outcomes, and roadmap execution.

- Drove platform architecture: replication re-architecture, **Flink**-based ingestion, and **AutoMQ/RBS** adoption to improve durability and operational simplicity.
- Cut consumer incident mitigation from ~3 hours to ~30 minutes by designing freshness-restore + automated failover/backfill workflows across KCP and replication pipelines.
- Implemented and supporting: native/proxy clients, retryQ/DLQ, context propagation, zone isolation, workload rebalance, metadata storage(**Zookeeper**) and much more.
- Owned **uGroup** (Kafka consumer monitoring) end-to-end: [uber.com/blog/introducing-ugroup-ubers-consumer-management-framework](https://uber.com/blog/introducing-ugroup-ubers-consumer-management-framework)
- **ex-TLM of Kafka Control Plane**, enhanced internal Kafka metadata management with cloud-like experience. Strengthen cross-region reliability through source-of-truth re-architecture.

**Knowledge Platform founding member**, supporting Online Data AI transformation

- Built efficient CPU-based embedding generation service for large-scale near realtime ingestion.
- Built knowledge data intake(WebSocket push, API fetch, etc) service featuring **OpenSearch** indexing, **LanceDB** persistence, and taxonomy/ontology extraction.

**Active Uber Ring0 First Responder**: Global incident responder / incident commander: coordinated cross-team mitigations including lockdowns and failovers during SEVs.

Uber, Money - Core Services

Nov 2018 - Dec 2020 | Amsterdam, The Netherlands

**Tech Lead of Collections & Cashouts team**, moving money in and out of Uber for the areas of arrears collection and driver cashout, in a secure, efficient and scalable way

- Led 3DS/SCA project, worked with 10+ teams and 10+ European banks to enable two-factor auth for credit card payment across 60+ payment flows in European Economic Area.
- Integrated UberPay in arrears collection, instantly unlocking more payment service providers in different regions without repeated integration.

Uber, Identity - Security Engineering

Jan 2018 - Nov 2018 | San Francisco, CA

- Maintained Uber's 3rd party customer identity platform for OAuth and external provider integrations.
- Implemented both backend and frontend changes for new Alipay-Uber integration
- Enabled Uber in Google Maps with new JWT-based 3rd-party integration

## ◇ Member of Technical Staff III

02/16/2016 - 01/12/2018

VMware, Network & Security Business Unit

Palo Alto, CA

- Implemented CDO mode IPS mode cluster level API
- Enhanced NSX-V product security for FIPS certification, including upstream(Python) patches
- Implemented CLI and daemon to support Java profiling on NSX-T/V Controllers

## ◇ Software Engineer Intern

05/04/2015 - 07/15/2015

Alibaba Group, Data Technology & Product Division

Hangzhou, China

- Built a **Apache Storm** and **Apache Kafka** based large scale realtime crawler, with peak performance of 10M pages/day

## EDUCATION ◇ Georgia Institute of Technology, Atlanta, Georgia

08/04/2014 - 12/15/2015

Master of Science in Electrical & Computer Engineering GPA: 3.81/4

Research Assistant, Contributed to DoE ARPA-E with data collection application CommuteWarrior