

GUOQING XIONG

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EDUCATION

New York University

Master of Science, Computer Science

Beijing University of Posts and Telecommunications

Bachelor of Engineering, Electronic Engineering

New York

September 2015 – May 2017

Beijing, China

September 2011 – July 2015

TECHNICAL SKILLS

Programming Languages	Java, Kotlin, Golang, Python, Typescript
Cloud Services	Amazon Web Services (AWS), Docker
Databases	DynamoDB, Redis, MySQL, Postgres, MongoDB
Frameworks	SOA, Microservices, React, Node.js, Webpack, RubyOnRails
APIs & Tools	Thrift IDL, gRPC, Git, Linux/Unix, CI/CD, Backstage
Domains	Logistics, Distributed System, Machine Learning Infrastructure

WORK EXPERIENCE

Software Development Engineer

October 2023 – Now

Amazon.com, Inc

- **Launched** booking batch planning test framework with over 20 cases, decreased regression test effort by 80%, also integrated test suite in full-CD pipelines
- **Implemented** vessel capacity allocation constraints then populated with supply network into DocumentDB, hence improved vessel capacity utilization priorities
- **Designed** destination dwelling constraints into Mixed Integer Linear Programming solver, which decreased cargo dwelling time by 3 days and demurrage fee by 12%
- In cross-org project Capacity Aware Booking, **re-designed** Port Warehousing system to generate container load plan with promised ETA and destination
- **Resolved** a long-standing capacity consumption mismatch issue by developing a Lambda script with detect, cache & reset mechanism, reduced mismatches from few hundreds to under 10 and avoided recurring planning delays

Software Development Engineer

July 2023 – October 2023

Flexport, Inc

Insurance Team

- **Contributed** to the architecture and implementation of the Cargo Insurance System (quoting, invoicing, underwriting components) to support customized insurance sales and captive loss goals
- **Utilized** the internal RubyOnRails monolith and cloud-native Backstage platform to accelerate software development and delivery

Software Development Engineer

September 2020 – March 2023

ByteDance, Inc

TikTok Team

- **Pioneered** a video partial-view visibility feature and drove adoption across all social scenes (post, review, feed), AB test resulting in a 10% increase in post rate and a 0.2% increase in Long-Term (LT) metrics
- **Optimized** the data synchronization mechanism for the IES phonebook system, improving data consistency from 75% to 99.9% and gaining social depth by 4%
- **Implemented** privacy filter logic into a proxy SDK, which filtered 1000s of

unauthorized content accesses per day and prevented user privacy issues

- **Built** an internal social lookup system that stores user behavior snapshots, improved debugging customer issues effort to within minutes
- **Delivered** a client retry upload solution after debugging a 4XX load-balancer stability issue in the phonebook business, improving friend recommendation follow rate by 7%
- **Collaborated** with the infrastructure team to optimize the local cache mechanism, resolved video visibility rendering latency issue

Software Development Engineer

October 2019 – Aug 2020

Michelangelo Team

Uber Technologies, Inc

- **Led** the migration of MLE APIs from Python to a Java Monorepo and upgraded APIs using Thrift IDL
- **Configured** traffic control, monitoring, metrics, staging environment, and Docker for the new MLE service

Software Development Engineer

October 2018 – October 2019

DynamoDB Team

Amazon.com, Inc

- **Contributed** to designing Transact Get and Transact Write feature in DynamoDB
- Implemented functional tests in test cluster for Pay by Request mode and Transaction feature in DynamoDB
- **Enhanced** dmesg (diagnostic messages) error checks to detect and added excom unhealthy RequestRouter node mechanism

Software Development Engineer

June 2017 – October 2018

Middle Mile Transportation

Amazon.com, Inc

- **Developed** Middle Mile Rates Webapp using React, Webpack, and Typescript
- **Contributed** to the design of carrier rates service in Java Microservices