

## Robin, Guoqiang Chen

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Academic Qualifications: MEng & BEng in Software Engineering

Visa Status: Eligible to work in HK under Top Talent Pass Scheme (TTPS)

### Summary

- **Experience:** Software engineer with 3 years' industry experience and 7 years' academic background
- **Backend:** Built high-concurrency, distributed services (78K peak QPS and ~1.8B requests/day)
- **Projects:** Led core modules for QQ platform, powering 550M MAU and 3B+ registered accounts
- **Languages:** Trilingual — Mandarin Chinese (Native) · English (IELTS 6.5) · Japanese (JLPT N2)

### Education

Peking University	Master of Engineering	Software Engineering	Sep. 2018 – Jul. 2021
Xi'an Jiaotong University	Bachelor of Engineering	Software Engineering	Aug. 2014 – Jun. 2018

### Employment

#### Tencent Backend Software Engineer Aug. 2021 – Aug. 2024

- Social Platform Department, Platform & Content Group (PCG). Owned backend services for QQ—one of the Internet's longest-standing, highest-traffic IM systems and a top 6 global IM by MAU — managing a massive legacy codebase and high-concurrency workloads. Scope included the Account System, Channel, Face Recognition, and Featured Functions.
- **Account System** (Go/C++) — Core module dating back to 1999; ~3B registered user accounts.
  - Problem solving: The account system was originally designed using 32-bit integer (int32), which is sufficient for ~4.2B accounts, after two decades of rapid growth, the design hit its limit, the indicator shows the account resources will run out within three years.
  - Maintenance: Stabilized extensive legacy services; triaged user feedback; simplified critical workflows (revocation/recycling/registration); proficient in incidents handling.
  - Modernization: Advanced legacy services toward cloud-native; containerized core services; established CI/CD streamline; refactored recycling subsystem to save the account resources. Managed to cut daily feedback to single digits, ensured long-term support for billions of accounts.
  - Remove the limit: Collaborated with dozens of upstream/downstream teams; redesigned protocols to support uint64 IDs (compatible with old int32) and string-type OpenID (safe and expandable).
  - Award: Recognized with the Social Platform Department "Star" Award in this project.
- **Channel** (QQ community) – Built high-throughput user profile backend for millions of users, with strong consistency on critical attributes, sustaining 78K peak QPS and ~1.8B requests/day.
  - Designed and operated the user profile service; built multi-layer cache system and data-access services via Memory/Redis/MySQL/Kafka with fault tolerance.
  - Co-built generative feeds with the AI team; defined API contracts and generative services.
- **Face Recognition** - Redesigned and operated backend facial recognition services:
  - Improved tail-latency and containerized the proxy to enhance reliability.
  - Implemented secure gateways, CDN storage and asynchronous processing to handle bursty traffic.
  - Using trace analyze to cut the redundant workflow, reduced monthly cost from 6M to 5M CNY.
- **Featured Functions** - e.g., Login Notification, Panel Control, Online Status:
  - Recovered login notification services, made new templates for message push service.
  - Designed distributed cache system to support QQ group panel control (~2.2B req/day).

#### Career Break International Career Preparation Sep. 2024 – Sep. 2025

- Solo backpacking across the UK, Ireland, HK, and Japan to uncover new work and life opportunities.
- Achieved IELTS 6.5 (7.5/6.5/6.5/5.5), JLPT N2 (131/180, listening full marks), both leveled CEFR-B2.
- Renewed blockchain knowledge from master's oracle research and tracked cutting-edge frontiers.

### Skills

- **Programming:** Go (primary, 4yrs) also C++, Java, Python, Solidity
- **Tec-Stacks:** Redis, MySQL, Kafka, gRPC/REST, Nginx
- **DevOps:** Linux, Docker, Kubernetes, CI/CD
- **Domains:** Distributed systems, High concurrency microservices, Account auth
- **Blockchain:** Solidity on EVM, Smart contracts, Oracle mechanisms