

# WENKAI CHE

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U.S. Permanent Resident • Authorized to work without sponsorship

## SUMMARY

Senior software engineer at Tencent building large-scale news apps (30M+ users). Primary owner of the live-streaming module and integrated generative-AI features (AI agents, AI digital humans) into the product. Independently designed, built, and launched a web service now serving 12.5K+ users and 1,500+ subscribers through 100% organic growth.

## EXPERIENCE

### Senior Software Engineer

Beijing, China

Tencent

Jul 2018 – Present

#### Live Streaming & Generative AI — Tencent News (30M+ users)

2021 – Present

- **Primary owner of the live-streaming module** for the entire app — led its architecture, integration, and development; unified personal, broadcast, and sports live formats under a single system, coordinated cross-platform protocol design, and drove end-to-end release across a team of 60+ engineers.
- **Integrated generative-AI features** into the live product, contributing heavily to an in-app AI agent chat assistant and an AI digital-human live-interaction experience that brought AIGC conversation into the live-streaming flow.

#### Cross-Platform Core — Kotlin Multiplatform (KMM)

2024 – Present

- Built shared business logic and Compose Multiplatform UI (qnCore / qnCompose / qnMedia) in a Kotlin Multiplatform codebase, unifying features across Android and iOS and extending core modules to HarmonyOS.

#### Remote Build System — self-initiated, sole developer

2020 – 2023

- Independently conceived and built a zero-configuration remote compilation system end-to-end: an Android Studio / IntelliJ **IDE plugin** (Kotlin), **server-side** sync-and-build scripts over SSH & RSync, and **Dockerized** build servers.
- Reached **90%+ adoption** across the QQ, Video, and News teams, cutting local CPU/memory usage ~90% and shortening build times with zero manual setup.
- Led a Git LFS migration that cut repository clone size from **11.95 GB to 500 MB (96% reduction)**.

#### Audio Playback — Tencent News

2019 – 2020

- Designed and built the audio player library powering all in-app audio (channels, TTS narration); eliminated loading delays with a local socket proxy cache plus preloading for near-instant playback, and a segmented TTS player with real-time sentence-level highlighting.

## SELECTED PROJECT

### Founder & Sole Developer

Case Monitor — pivib.com

2026 – Present

- Built a subscription service that emails users the instant their case status changes, removing the need to manually re-check a slow government portal several times a day.
- Shipped end-to-end as a solo developer — React frontend, Node backend, a self-hosted Qwen LLM (Ollama), deployed via Cloudflare Tunnel — using an AI-assisted development workflow.
- Grew to **12.5K+ cumulative users** and **1,546 active subscribers** through 100% organic traffic with zero ad spend; ~7.5K monthly visitors at a 2m17s average session.

## SKILLS

**Languages:** Java, Kotlin, Python, JavaScript / TypeScript

**Mobile:** Android SDK, Kotlin Multiplatform (KMM), Jetpack Compose, HarmonyOS, ExoPlayer, AAB/AAR, Gradle

**AI / ML:** Generative-AI integration (AI agents, AIGC), RAG, local LLM deployment (Ollama, Qwen), AI-assisted dev (Claude Code), machine learning

**Infra & Self-Hosting:** Linux, Docker, VPS & self-hosting, network proxies, Cloudflare, CI/CD, Git LFS, remote build (SSH/RSync), React, Node

## EDUCATION

**M.S., Pattern Recognition & Intelligent Systems** — Heilongjiang University

2015 – 2018

**B.S., Computer Engineering** — Yantai University

2011 – 2015

## RESEARCH & PEER REVIEW

Applied machine learning and hyperspectral imaging for food-quality and safety detection — **12 publications, 555+ citations** (scholar.google.com/citations?user=cfn72LYAAAAJ). Active **peer reviewer for 8 international journals** in spectroscopy, machine learning, and agriculture, including *Scientific Reports*, *Journal of Food Science*, *Computers and Electronics in Agriculture*, and *Journal of Nondestructive Evaluation*.