

# KHONGCHAI GREESURADEJ

Senior Software Engineer | Team Lead

Email: world1955@hotmail.com | Location: Bangkok, Thailand

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## PROFESSIONAL SUMMARY

Senior Software Engineer with ~6 years of professional experience across the full stack. Experienced in high-performance 3D graphics (ThreeJS/Shaders), scalable data pipelines (Temporal/MongoDB), and real-time audio processing (C#/Rust). Passionate about building robust systems from scratch to optimize for cost, performance, and flexibility. Strong background in music, bringing a unique creative problem-solving perspective to software engineering.

## WORK EXPERIENCE

### Senior Software Engineer (TypeScript) - Zentry (Crypto AI Insights)

Current

- Architected the entire data pipeline for terminal.zentry.com using Temporal and MongoDB for crypto insights using complex algorithms (sliding window for normalized score, token bucket for stamina tracking, etc)
- Crafted high-performance custom shaders and developed a Three.js 3D site.
- Designed and implemented a scalable notification system for radiant.gg.
- Simple 2D engine in pure typescript with HTML5 canvas for radiant.gg's game navigation feature.
- Developed full-stack features using TypeScript across various crypto-focused AI products.

### Software Engineering Team Lead (Part-Time -- Java, Kotlin) - Catnap House Co.Ltd

Current

- Designed the core finance module from scratch using event sourcing and a custom ledger system.
- Managing complex financial logic including coupon systems, multi-currency (USD/THB) support, and conversions.
- Building a robust chat system from scratch using RabbitMQ and Postgres to ensure stability and cost-efficiency.
- Optimized engineering workflows by minimizing library dependencies, allowing for rapid iteration and stability.

### Solo Engineer (C#, Rust, TypeScript) - Smart Soloist

2023 - 2025

- Developed a cross-platform music application featuring heavy UI interactions and low-latency audio processing.
- Engineered a high-performant fully-fledged vocoder from scratch embedded in a native webview (it runs really well...in a webview!).
- Orchestrated a high-performance codebase using C#, Rust, and TypeScript.
- Managed the end-to-end development lifecycle from frontend UI to backend audio engine.

### Mid-level Software Engineer (Dart, Java) - Accenture

2021 - 2023

- Traditional CRUD java backend with Spring Boot.
- Banking document reconciliation system with Quartz Scheduler
- Built custom frontend libraries (it was still the early days for Flutter): <https://pub.dev/publishers/khong.xyz/packages>

### [Compiler, Go] Vocabulary Learning Syntax (Smart Memo2)

Created a custom syntax for vocabulary memorization based on the Smart Memo2 algorithmic approach. <https://github.com/Khongchai/.vocab>

### [Compiler, Go] Extended Calculator (Numi-like)

Building a small, powerful calculator syntax inspired by Numi for advanced numerical evaluations. <https://github.com/Khongchai/puter>

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## **[Protocol] Native-worklet protocol**

Protocol used in Smart Soloist for lazy chunk loading between js main thread and the audio thread.  
<https://github.com/Khongchai/native-to-webview-audio>

## **[3D site] Serenade on a Dream**

<https://serenade-on-a-dream.netlify.app/> << made this for my music album

## **SKILLS & LANGUAGES**

**Languages:** Thai (Native), English (Fluent), German (Conversational)

**Core Tech:** TypeScript, Go, Rust, C#, Java (Spring Boot), MongoDB, Temporal, RabbitMQ, ThreeJS, .NET MAUI