

NekoSpeak



Engineering Intelligence at the Edge

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Seeking Opportunities in Singapore

I am looking for roles in **Product Management, Fintech, Payments, RegTech, and Digital Assets**.

"I am not just a Product person. **I build.**"

I have worked across product delivery, user research, and cross-agency collaboration. I enjoy solving complex problems and bringing structure to early ideas.

I care deeply about building products that create real impact.

The Problem: AI has a "Last Mile" Issue

In my work exploring **Fintech & RegTech**, I've seen how reliance on cloud APIs creates bottlenecks. For Voice AI on Android, this manifests as:

1. ● **Latency**: Waiting for server responses breaks natural conversation flow.
2. ● **Privacy Risks**: Sending sensitive audio data to the cloud is unacceptable for many use cases.
3. ● **Robotic Fallback**: Traditional offline engines (`espeak`) sound unnatural.

“**Goal**: Build a "Zero-Compromise" engine that runs mostly on-device.”

The Solution: NekoSpeak



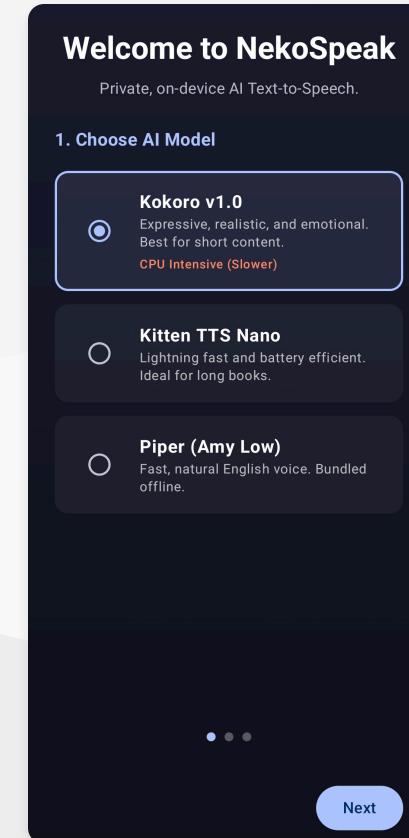
A drop-in replacement for the Android TTS ecosystem, bringing heavily quantized Large Audio Models (LAMs) to the mobile edge.

Triple Engine Core

- **Kokoro (82M):**
Human-level expressiveness.
- **Piper:**
High-speed, multilingual inference.
- **Kitten (Nano):**
Ultra-lightweight reliability.

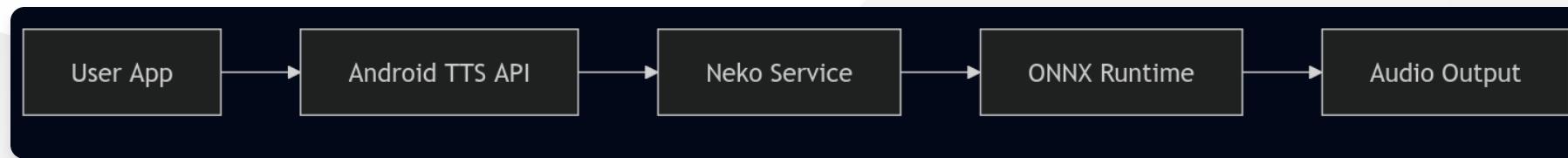
100% Offline

Zero latency. Privacy by design.



Technical Architecture

I architected a custom pipeline using **ONNX Runtime** and **C++ JNI Bridges** to optimize performance on mobile CPUs.

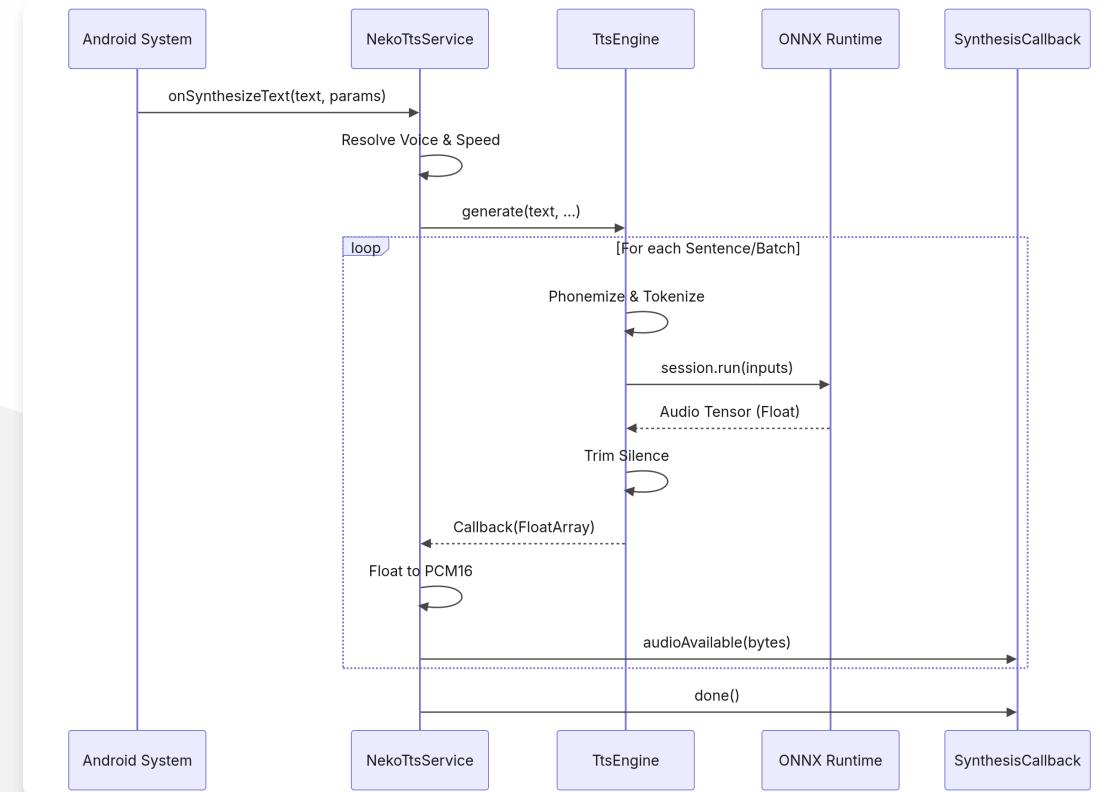


- **Smart Batching:** Dynamic buffering balances latency vs. context window.
- **Native Bridge:** Custom C++ wrapper for `libespeak-ng` phonemization.

Deep System Integration



Unlike simple "wrapper" apps, NekoSpeak integrates deep into the **Android Framework**.



It handles the full `CHECK_TTS_DATA` handshake, allowing it to power 3rd party apps (MoonReader, @Voice) system-wide.

Product Showcase



Polished UX focusing on accessibility and ease of use.

The image displays two side-by-side screenshots of the NekoSpeak mobile application interface. The left screenshot, titled "Voice Selection", shows a list of available voices. It includes a search bar and filters for Region, Language, and Gender. The first voice listed is "amy (low)" from the United States, which is highlighted with a blue background. Other voices shown include "amy (medium)", "anna (medium)", and "arctic (medium)". At the bottom, there is a text input field containing "Hello, I am NekoSpeak." and a play button, along with "Voices" and "Settings" navigation buttons. The right screenshot, titled "Settings & Config", contains several configuration sections: "AI Model" (with options for Kokoro v1.0 (Standard), Kitten TTS Nano, and Piper (ONNX)), "Performance" (with a slider for CPU Threads set to 6), "Stream Buffer" (set to Auto tokens), "Speech Speed" (set to 1.0x), "Battery" (warning about Disable Battery Optimization for seamless background playback on OnePlus/Oppo devices), and "General" (System TTS Settings). Both screenshots have a dark theme with light-colored text and icons.

Engineering Philosophy & Impact ☀️

This project reflects my approach to Product Engineering:

1. **Solve Real Problems**: Bridges the gap between "Cool AI Demo" and "Daily Driver Utility".
2. **Robust Engineering**: "Zero-Crash" architecture with graceful degradation (Cloud -> Local -> Nano).
3. **User-Centric**: Privacy by default, with no hidden analytics.

Similar to my work on the [Singapore Location Intelligence MCP](#) and [Client-Side OCR](#).

About the Builder



Sivasubramanian Ramanathan

*Product Owner | Fintech, RegTech & Digital Innovation
PMP | PSM II | PSPO II*

I specialize in taking messy, real-world complexity and structuring it into reliable products.

Open for roles that sit between policy, technology, and stakeholder engagement.

Lets Connect

I am ready to bring this level of engineering rigor and product thinking to your team.

-  **Portfolio:** sivasub.com
-  **LinkedIn:** linkedin.com/in/sivasub987
-  **Code:** github.com/siva-sub/NekoSpeak

Download NekoSpeak v1.0.10:
github.com/siva-sub/NekoSpeak/releases