

# NekoSpeak

## Engineering Intelligence at the Edge

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*Product Owner | Fintech & Innovation  
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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.

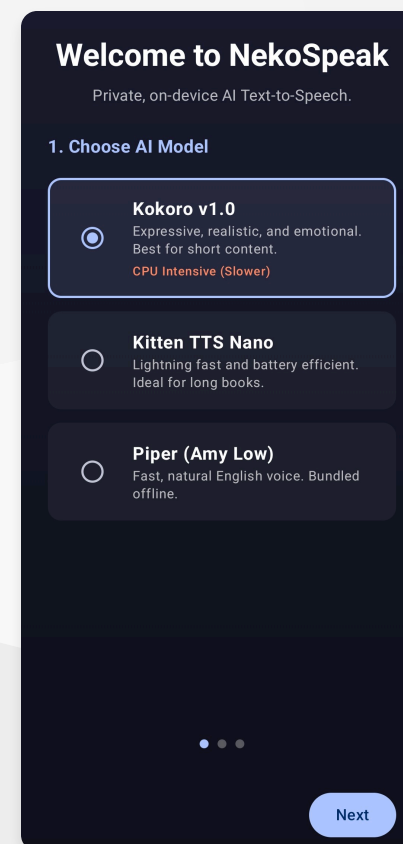
“**Goal**: Build a "Zero-Compromise" engine that runs mostly on-device.

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# The Solution: NekoSpeak

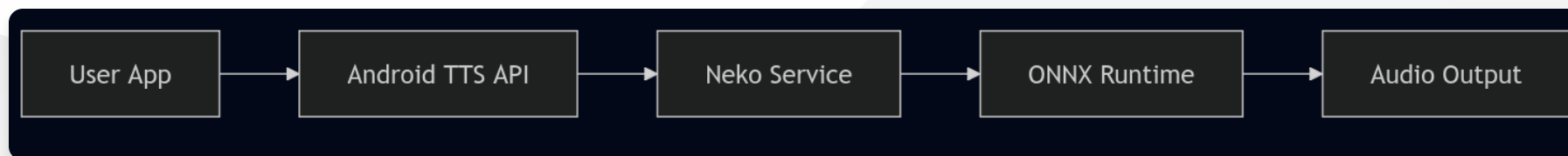
A drop-in replacement for the Android TTS ecosystem, bringing heavily quantized Large Audio Models (LAMs) to the mobile edge.

- **Triple Engine Core:**
  -  **Kokoro (82M):** Human-like.
  -  **Piper:** Fast & Multilingual.
  -  **Kitten (Nano):** Lightweight.
- **100% Offline:** No internet needed.



## Technical Architecture

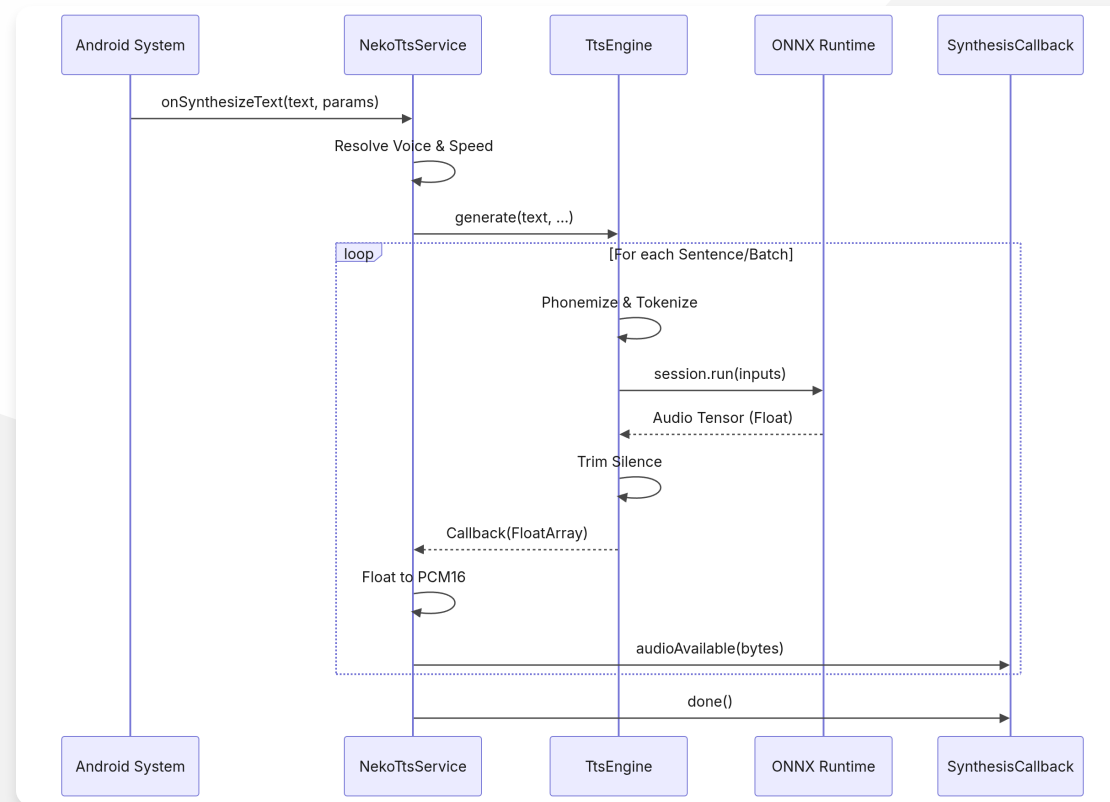
I architected a custom pipeline using **ONNX Runtime** and **C++ JNI Bridges** to optimize performance on mobile CPUs.



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

# Deep System Integration

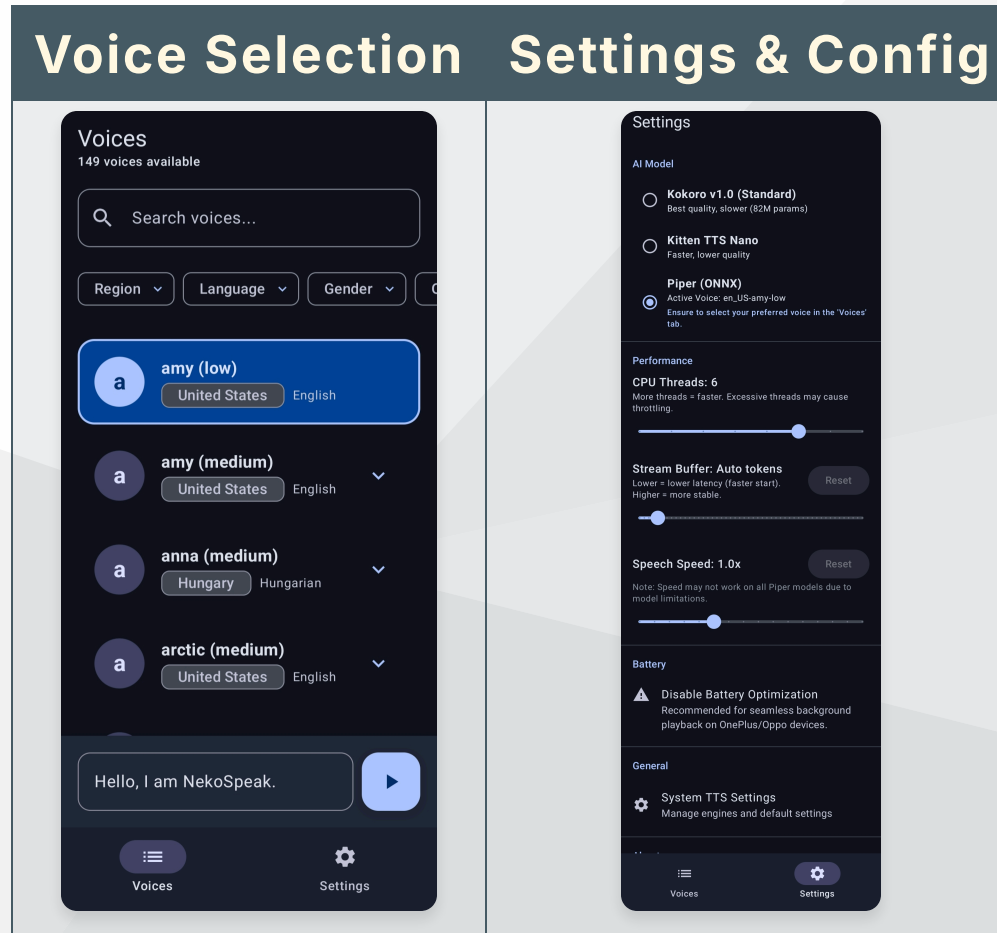
Unlike simple "wrapper" apps, NekoSpeak integrates deep into the **Android Framework**.



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.



# 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](https://sivasub.com)
-  **LinkedIn:** [linkedin.com/in/sivasub987](https://linkedin.com/in/sivasub987)
-  **Code:** [github.com/siva-sub/NekoSpeak](https://github.com/siva-sub/NekoSpeak)

**Download NekoSpeak v1.0.10:**  
[github.com/siva-sub/NekoSpeak/releases](https://github.com/siva-sub/NekoSpeak/releases)