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SensiML Integrates Cutting-Edge Generative AI Voice Technology in its ML DataOps Software for the IoT Edge

- SensiML Data Studio Democratizes Voice Recognition on Tiny Devices with New Text-to-Speech Synthetic Dataset Generation Feature

PORTLAND, Ore., July 25, 2024 /PRNewswire/ -- SensiML™ Corporation, a leader in AI software for IoT and a subsidiary of QuickLogic (NASDAQ: QUIK), today released a new generative AI feature to enhance Data Studio, its dataset management application for IoT edge devices. This innovative new capability allows embedded device developers to utilize text-to-speech (TTS) and AI voice generation to rapidly create hyper-realistic synthetic speech datasets that are essential for building robust keyword recognition, voice command, and speaker identification models. Using these rapidly generated speech datasets, developers can now easily create speech recognition AI models using SensiML's AutoML development tools. These models are specifically optimized to run autonomously and efficiently on low-power microcontrollers utilized in edge IoT applications.



By leveraging cutting-edge speech generation technology from ElevenLabs, SensiML's new feature simplifies the creation of large high-quality datasets. Developers can now generate synthetic speech data with unparalleled realism, and tailored voice attributes like pitch,

cadence, and tone to meet specific application requirements. This eliminates the time-consuming and costly process of manually recording phrases from large populations of diverse speakers, accelerating time-to-market for voice-enabled IoT devices.

Designed for user friendliness, the new TTS and AI voice generation feature enables seamless integration into existing Data Studio workflows.

Key benefits of SensiML's generative AI enhancement include:

- **High-Quality Voice Output:** Produces natural and expressive voice samples, enhancing user experiences
- **Versatility:** Supports a wide range of languages and dialects, catering to diverse global markets
- **Efficiency:** Streamlines the process of integrating voice generation into AI models, reducing time-to-market
- **Scalability:** Suitable for applications of all sizes, from small IoT devices to large-scale deployments

"With the introduction of this generative AI feature into our Data Studio application, SensiML continues to push the boundaries of what's possible in AI for IoT," said Chris Rogers, CEO of SensiML. "Developers can now harness state-of-the-art synthetic speech technology to create highly accurate and diverse training datasets, accelerating the deployment of intelligent voice-controlled applications directly on microcontrollers."

The created datasets are seamlessly compatible with SensiML's Analytics Studio and its open-source AutoML tool, Piccolo AI™, facilitating a smooth transition from dataset creation to model deployment.

Real-World Example:
Consider a smart home security system that uses voice commands for activation and status updates. With SensiML's new text-to-speech and AI voice generator feature, developers can efficiently create extensive voice datasets, enabling the system to recognize a wide range of user commands accurately. This advancement accelerates the development and deployment of the system, ensuring homeowners benefit from an advanced, reliable, and responsive security solution without the need for constant internet connectivity.

This feature marks a significant advancement in the capability of developers to custom build their own ML code for IoT devices needing to handle complex voice and sound recognition tasks directly on-device, without the need for constant connectivity or high computational power. It is particularly beneficial for applications in environments where connectivity may be inconsistent, and where fast, reliable processing is crucial.

About SensiML

SensiML, a subsidiary of QuickLogic (NASDAQ: QUIK), offers cutting-edge software that enables ultra-low power IoT endpoints that implement AI to transform raw sensor data into meaningful insight at the device itself. The company's flagship solution, the SensiML Analytics Toolkit, provides an end-to-end development platform spanning data collection, labeling, algorithm and firmware auto-generation, and testing. The SensiML Toolkit supports a growing list of hardware including 8/16/32-bit MCUs from Microchip®, Arm® Cortex®-M

class and higher microcontroller cores, Intel® x86 instruction set processors, and heterogeneous core AI/ML optimized SoCs. For more information, visit https://sensiml.com.

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