



Press Release White Paper

Microtron AI Inc VERSE 1.1 Release

Verse and the user interfaces we have built was to allow AI along with many other algorithms and applications to be a part of your toolbelt for getting things done and having fun. Here at MicrotronAI we see the importance of putting AI in the right place for practically and not just for a niche group of people, we allow spaces for more niche groups but are planning long term and alongside mixed reality and traditional interfaces, we are working towards putting our AI on the map.

Let's delve into the technical aspects of our AI. As the CTO of MicrotronAI, my primary focus was to examine human features and identify technologies that could effectively emulate these in our AI systems. We recognize that we're in the early stages of integrating more neural network-intensive AI software into mainstream society. This integration comes with numerous promises, but realistically, it may take 5 to 10 years of rigorous development before Large Language Models (LLMs) and other AI models can consistently provide accurate, clear solutions to complex problems. This timeline applies to various AI model types

In developing CALM Verse's AI, I envisioned neural networks and transformers as integral components of a larger AI ecosystem. This ecosystem incorporates an array of algorithms working in concert to enhance predictive accuracy for various problem-solving scenarios. These scenarios can range from simple user prompts like "What is the distance from Earth to the Moon?" to significantly more complex queries, as well as tasks that extend beyond traditional prompt-based interactions.

Our comprehensive approach to modeling human features encompasses several key technologies: text-to-speech, speech recognition, vision data processing with object detection, conversational AI powered by Large Language Models (LLMs), and human language translation. These capabilities are integrated into our AI Service API, which also features a modular system designed to accommodate additional models for future expansion. These models can operate independently or in conjunction, depending on the specific requirements of the software utilizing our APIs. For instance, a Raspberry Pi 5 single-board computer running Node.js could leverage the integrated GPIO to connect with our vision model via Socket.IO, while simultaneously accessing our conversational AI API. This configuration could enable the creation of a robot capable of verbal communication and obstacle avoidance, illustrating the versatility and potential applications of our technology stack.

Our technologies incorporate a range of algorithms, including some traditional approaches. For those familiar with AI development, we employ RAG (Retrieval-Augmented Generation), which, while not strictly traditional, enhances our Large Language Models (LLMs) with improved context and prompt construction. Our vision model integrates extensive OpenCV library code to manage various tasks and enhance image quality when detecting objects, faces, eyes, emotional expressions, clothing types, and more. Additionally, we utilize algorithms that dynamically select from different model types based on the data contained in client requests via HTTP or WebSocket, ensuring optimal results for each query.

In addition to our API, we offer multiple ways to interact with our AI services. We primarily present these services through two platforms: Verse Desktop and Verse Realms. Verse Desktop simulates a computer interface, complete with files, folders, and applications that users can interact with. Instructions on how to use Verse Desktop are readily available via the help icon on the desktop, which provides guidance on utilizing our integrated AI tools, such as conversational AI and human language translation. Verse Realms, on the other hand, is a 3D mixed reality environment designed to incorporate our AI services while allowing for future updates that enable the creation of 3D worlds for both work and leisure. While the concept of Verse Realms draws inspiration from Roblox, its mechanics and theme are entirely our own.

Parker Bidigare, CTO