KETAN KRISHNA SHETYE

Full Stack AI Engineer | Voice AI Product Builder

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Career Profile

Full Stack AI Engineer with 4+ years of experience building intelligent systems across backend, frontend, and AI integration. Currently at Sophiie.ai, developing real-time **Voice AI agents** using LiveKit for voice calling, meeting scheduling, and assistant workflows. Specialized in **Conversational AI and GenAI**, with deep expertise in designing, developing, and deploying smart chatbots, virtual assistants, and dialogue systems. Proven ability to create scalable, real-time conversational platforms, including the **award-winning *Machine Agent***. Passionate about using AI to drive automation, enhance user interaction, and deliver impactful real-world solutions.

Education

DEAKIN UNIVERSITY, GEELONG

Master of Artificial Intelligence (Professional)   **2024 – 2025**

Major: Data Science | Grade: Distinction

Professional Experience

Software Developer – Voice AI (https://sophiie.ai/**)**
Sophiie AI, Australia   **May 2025 - Current**

- Real-Time Voice AI Engineering: Developed and optimized real-time Voice AI agents using the **LiveKit framework** (also utilized by OpenAI's ChatGPT for voice streaming), enabling intelligent voice calling, meeting scheduling, and assistant workflows.
- Innovative Agent Testing Framework: Created a first-of-its-kind **Agent-to-Agent testing suite** for virtual usability testing, allowing simulated interactions to validate end-to-end conversational flows; this approach attracted interest from the LiveKit team for collaboration
- Observability & Insights Dashboard: Built a real-time dashboard on **Axiom**, tracking key metrics including number of calls, cost per call, service consumption, LLM usage, and call latency monitoring.
- System Performance & Latency Optimization: Improved response latency and system performance through architectural **optimizations** and efficient service integration across **LLM, STT, and TTS** modules

AI Strategy & Solutions Consultant (https://machineagents.ai/**)**
Askgalore Digital Pvt Ltd, Australia   **Mar 2024 – Jan 2025**

- **Technical AI Leadership –** Led strategic AI discussions with clients, offering technical insights on conversational AI architecture to shape project direction and secure buy-in.
- Scalable AI Solutions – Designed and implemented a scalable GenAI-powered conversational platform integrating LLMs, voice synthesis, and 3D avatars for real-time, human-like interactions.
- **Team Oversight & Guidance –** Managed and mentored a cross-functional AI team, aligning development with project goals and ensuring timely, high-quality delivery.
- **AI Project Management –** Oversaw the full lifecycle of the Machine Agent project—from ideation and PoC to production deployment—ensuring technical feasibility and business alignment.
- **Proof of Concept (PoC) Development –** Built impactful PoCs demonstrating real-world use cases like automated customer support, helping accelerate client confidence and project adoption.

Key Achievement:
Led the development of *Machine Agent*, a GenAI-powered conversational AI platform combining LLMs, voice synthesis, and 3D avatars for real-time, human-like interactions. The platform enhances customer support and automation efficiency, earning recognition as the **"Best Innovation Product"** at a startup event. [Project URL: https://machineagents.ai/]

Conversational AI Experience

MediLink – GenAI Voice Assistant for Healthcare

Description:
Developed a HIPAA-compliant, voice-enabled GenAI assistant for symptom triage and appointment booking via natural speech and text. Utilized GPT-3.5 and LangChain for contextual medical conversations, integrated Whisper (STT) and ElevenLabs (TTS) for seamless voice interaction, and synced with Google Calendar API for real-time scheduling. Deployed with FastAPI and Streamlit on a Firebase backend, reducing manual booking load by 60% and enhancing accessibility for Australian users.

Impact:
Reduced manual booking load by 60% and enhanced accessibility with voice support tailored for **Australian accents and common terms.**

Sr. AI Engineer (Specialization in AI & Blockchain)
Askgalore Digitial Pvt Ltd, India   Aug 2022 – Feb 2024

- **AI-Based Multi view generation & 3D reconstruction**– Developed AI-driven solutions including automated invoice data extraction using OCR (OpenAI, Textract, PaddleOCR), 2D-to-3D garment reconstruction with NeRF for virtual try-ons, and a real-time sports analytics system for player and ball tracking. These projects enhanced workflows in finance, e-commerce, and athletic performance through intelligent automation and visual insights.

Software Developer (Specialization in Python)
Chrisel Technolab Pvt Ltd, Mumbai   Sep 2020 – Jul 2022

- Built a secure, AI-powered P2P file-sharing system using Python, Django, Flask, PyQt5, and Libp2p, with IPFS-style encryption protocols for private, low-latency data transfer and real-time file analytics.
Project URL: https://www.chrisel.net/people-s-byte

Skills

Python, JS | FastAPI, Flask, Node.js | ChromaDB, Firebase, SQL | Livekit, LangChain | DeepGram, Openai, ElevenLabs | Docker, AWS, Azure | Conversational AI, AI Chatbots, Voice AI Assistants

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Achievements

- **2nd Place, Global AI Hackathon (Australia):** Ranked 2nd out of 50+ teams for building real-world AI agent solutions, 2025.
- **Best Innovative AI Product, E-Summit '25:** Awarded for leading the development of Machine Agent at Central India's Startup Expo.

Referees

- Kunal Tomar, CEO at Askgalore Pvt Ltd LinkedIn | kunaltomar@askgalore.com
- Willbun Fereira, Co-founder at Chrisel Technolab LinkedIn | willbun.fereira@gmail.com