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CASE STUDY

Saras AI Institute

Reinvents Learner Support with an AI-Native Teaching Assistant Built on AWS and Shri Sai Tech LLC DBA SST

Executive Summary

Saras AI Institute is building AI-native learner support — one where AI does not merely sit alongside the course material, it is how learners reach it. The assistant answers questions about admissions, fees, course content and deadlines entirely through natural conversation, by text, by voice, or face to face with a talking avatar.

Traditional learner support is slow and fragmented: the same questions arrive by email, phone and chat at every hour, while the answers live in course documents, the LMS and the heads of a handful of staff. A prospective learner who waits overnight for a reply has often already gone elsewhere.

To realise its vision, Saras AI Institute partnered with Shri Sai Tech (SST) to design, develop and deploy the SarasAI Teaching Assistant on Amazon Web Services (AWS). Leveraging Amazon Bedrock embeddings, real-time speech and avatar streaming and a cloud-native architecture, SST delivered an assistant that answers from the institute's own course material — and hands over to a human support agent, with the full conversation, when a person is needed.

The challenges

- **Challenge 1 — Repetitive, High-Volume Learner Questions**
  Support staff answered the same admissions, fees and course questions hundreds of times over, leaving no capacity for the learners who genuinely needed a person.
- **Challenge 2 — Support Only During Office Hours**
  Enquiries arrived at every hour and across time zones, but answers did not. Prospective learners who waited overnight often did not return.
- **Challenge 3 — Knowledge Scattered Across Systems**
  Course content lived in the LMS, policies in documents and answers in staff experience, with no single place an assistant could draw on reliably.
- **Challenge 4 — One Language Did Not Fit Every Learner**
  Learners asked questions in several languages. Hiring support staff for each one was not practical, and an English-only assistant excluded the learners it most needed to reach.
- **Challenge 5 — No Clean Path From AI to a Human**
  Where automated chat existed, reaching a person meant starting again — repeating the question, the context and everything already explained.

SARAS AI INSTITUTE

About Saras AI Institute

Saras AI Institute is an education provider building AI-native learner support — an assistant that answers from the institute's own course material, in the learner's own language, by text, by voice or face to face.

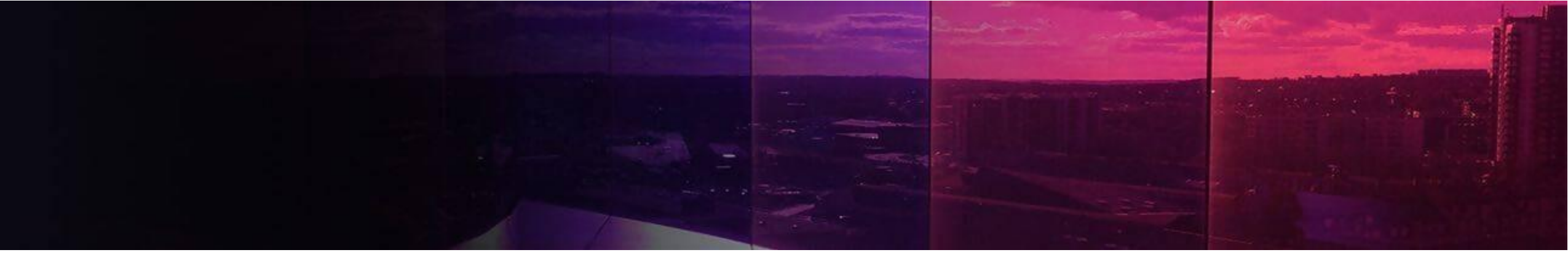
Saras AI Institute's mission is to make learner support effortless: ask a question in your own words, and the AI Teaching Assistant answers from the institute's own course material, at any hour.

Aman Gupta

Chief Technology Officer & Co-Founder

A seasoned Education Technology expert and IIT Delhi alumnus with over 16 years of experience, Aman excels in designing innovative products that empower and inspire young, enthusiastic students.

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Simplify Digital Transformation with AWS

Amazon Web Services (AWS) provided Saras AI Institute with a secure, scalable and cost-effective cloud platform to build AI-native learner support from the ground up.

By leveraging managed AWS services, Saras AI Institute avoided the complexity of building and maintaining large-scale AI infrastructure, while gaining managed access to advanced foundation models and a platform that scales with enrolment rather than with headcount.

Why Shri Sai Tech?

Saras AI Institute selected Shri Sai Tech for its deep expertise in AI implementation, cloud-native architecture on AWS, conversational agent design and rapid delivery of production-ready solutions:

Key reasons Saras AI Institute selected SST:

- AI and machine learning implementation capabilities
- AWS cloud architecture and Amazon Bedrock experience
- Conversational agent and prompt-engineering expertise
- Retrieval-grounded knowledge base design
- Real-time voice, speech and avatar streaming
- Agile delivery methodology
- Ability to rapidly deliver a production-ready proof of concept

The Solution

SST designed and implemented the SarasAI Teaching Assistant — a conversational platform built on AWS with Amazon Bedrock embeddings — that turns an institute's existing course material into an assistant learners can reach by text, by voice or face to face.

AI Teaching Assistant

Each assistant is configured in the admin console — persona, greeting, language model, voice, avatar and supported languages — and answers from the institute's own material, with replies streaming as they are written.

Course-Grounded Knowledge Base

Documents, FAQs and course content are synced from the LMS and indexed for retrieval, so every answer is drawn from what the institute actually teaches.

Live Avatar Conversations

Learners open a real-time video call and speak to a lip-synced avatar that listens and replies naturally, carrying the same knowledge and conversation history as the text chat.

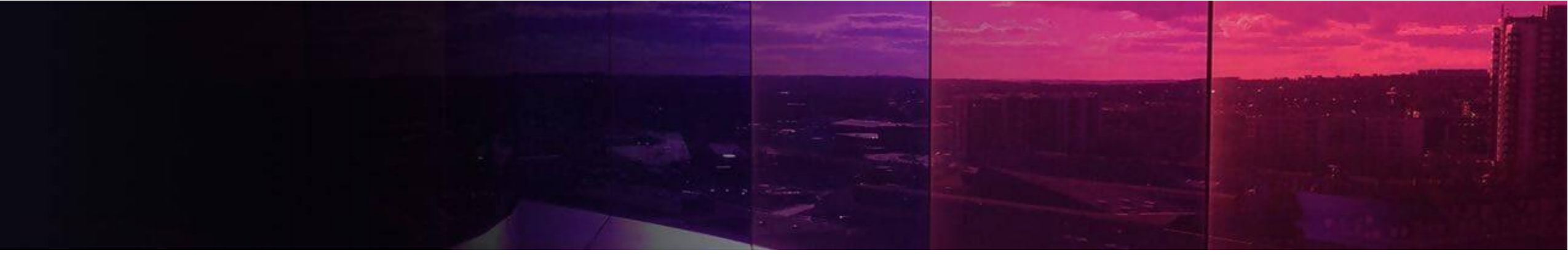
Multilingual Speech and Replies

The learner's language is detected as they speak and answers are returned in it, including twelve Indian locales, without configuring a separate assistant per language.

Human Handoff With Full Context

When a learner asks for a person, a ticket is raised on the institute's support desk carrying an AI-written summary and the full transcript. An agent picks it up and chats in the same window; the assistant steps back in once the ticket is closed.

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Enquiry Capture and Embedding Anywhere

For admissions-style assistants, the assistant answers the question first and then offers a short form, collecting enquirer details for the admissions team. Any assistant embeds on a website with a single line of code, or into a mobile application as a drop-in component.

AWS Services and AI Models Used

Foundation Models

Foundation models for reasoning and retrieval Conversational answers grounded in course material • Retrieval over the institute's own content • Amazon Bedrock embeddings (Amazon Titan / Cohere) • Conversation summarisation at handoff	**Provider-Agnostic Model Layer** Portable by design • Foundation model accessed behind an abstraction layer • Keeps the assistant portable across models • Future-proof as new Bedrock models ship

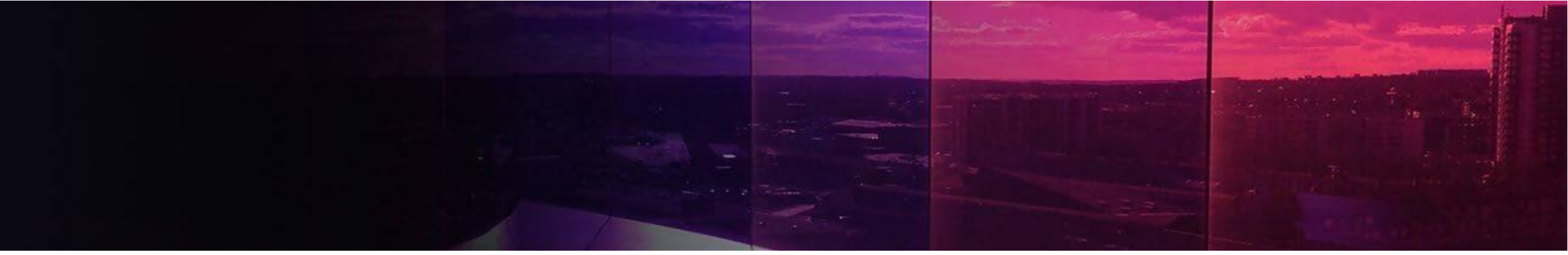
AWS Cloud Services

• Amazon Bedrock — managed foundation-model access • Amazon EC2 — application and real-time services hosting	• [Confirm remaining AWS services with the delivery team] • Well-Architected foundation

Results

- **Availability**
  - Learner questions answered immediately, at any hour
  - Support no longer limited to office hours
- **Grounding**
  - Every answer drawn from the institute's own course material, documents and FAQs
  - No reliance on general knowledge for institute-specific questions
- **Reach**
  - Text, voice and live avatar conversation from one configured assistant
  - Multilingual speech and replies, including twelve Indian locales
- **Continuity**
  - Human handoff verified end to end, with summary and full transcript
  - The assistant resumes automatically once the ticket is closed

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Benefits

- Instant answers to repetitive learner questions, freeing staff for the cases that need a person
- Support available outside office hours, so prospective learners are not lost overnight
- One grounded source of answers, drawn from the institute’s own course material
- Multilingual support without hiring for every language
- A clean path from assistant to human, with no repeating of context
- An assistant embedded on any website or mobile application with a single line of code

Next steps

- Single sign-on from the LMS, so the assistant recognises the learner it is talking to
- Automatic categorisation of support tickets and routing to the right support team
- Role-based access and authentication across the administration console
- Analytics on questions asked, answers given and handoff outcomes
- Evaluation of self-hosted avatar generation as call volume grows
- Expansion to further languages and additional course programmes

About Shri Sai Tech LLC DBA SST

SST is an AWS Partner specializing in AI-driven, cloud-native architecture and secure, compliant solutions across a wide range of industries — including healthcare, finance, education, retail, manufacturing, logistics, energy, government and public sector, telecommunications, and media and entertainment. Partnering closely with our clients, SST rapidly designs and deploys production-ready AI platforms on AWS, bringing AI-powered capabilities to market with speed and confidence.

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