

# AI Build: Generative Voice Customer Experience AI Solutions

The state of AI has accelerated dramatically over the last 12 months. Ideas that used to seem impossible can now be built in a week! This is the time to create the future.

Join a select group of builders pushing the envelope of what's possible in October and have the chance to present your project at the MIT AI Conference on October 26th, 2024 in New York. Learn from each other and the best in the industry, target impactful problems and technical challenges and launch a real project with an amazing team.

We strongly encourage those participating online to form teams within their communities, as tasks like these can be difficult when collaborating virtually or with an entire team you haven't met before. However if there are enough individual participants we may be able to work to match you up with others.

If you sign up and are accepted into the program, we will send an email with further details shortly.

## Hackathon Themes

The hackathon's main theme is Generative Voice AI Solutions, with a particular focus on the "Customer Service" application and creating ultra-realistic experiences.

Bots that respond as quickly as humans do in conversation. Building ultra-realistic speech in an array of voices, languages, and applications with safety and trust. A 500ms voice-to-voice response time is just barely possible with today's AI models - unless you hack your way!!

## Registration and Follow Up

Registration will happen through an [AirTable form linked here](#). We strongly encourage participants to enroll with a team in mind, if that is the case one of you may fill the form. After being selected we will send follow up emails regarding project submissions, deadlines and more.

<https://airtable.com/appeg8z1somSPKqnK/shrSrUmjcYczYV7FH>

### **Goal: Ultra-realistic Voice - Speech Processing and Voice Interfaces:**

- **Personality** - Really fun to talk to - sounds "natural" - sense of humanness
- **Personalization** based on call caller
- Building **Trust** in the Human-AI interface
- **Latency** / Perceived latency - < 500ms
- **Interruption handling** - stop and recover
- **End-of-turn detection**

### **Goal: Enhanced Quality, Safety & Security with LLMs and Voice**

- Realtime QA and analytics on human and Generative AI voice interactions
- Continuous learning, fine-tuning, and active learning (AI gets better with every interaction)
- Near real-time safety valves and guardrails
- Seamless human-in the loop
- Security, privacy, and data segregation
- PII and HIPAA compliance
- Fraud detection / deep fake / synthetic attacks
- Hallucination / Bias
- Compliance and Audit Trails

- Error accumulation - how long can the system maintain a coherent long interaction

**Goal: Uptime, Reliability & Portability**

- Failover, redundancy, and graceful degradation of the service with no perceived interruptions
- Negligible downtime
- Backup and recovery
- Scalability with small hardware footprint - Increase concurrent streams

**Goal: Integrating into existing systems, workflows and Vertical KBs, Tools & LLMs**

- Build intelligent AI Assistants/Agents for various call center applications
- Give a voice to devices for seamless human-device interaction
- Develop APIs and plugins to integrate voice features in existing applications
- Vertical-specific intelligence + integrating with vertical LLMs or domains-specific models

**Who should apply?**

The best projects are built by teams with multiple skills and backgrounds, so apply if you are:

**An engineer who has**

Built your own agent  
Fine-tuned LLMs  
Run a RAG pipeline over unique datasets  
Launched web, mobile, and desktop apps

**A designer who**

Knows what the next great interface is beyond chatbot  
Has created user-centric designs and experiences  
Collaborates with cutting-edge gen AI tools to push design forward

**A data scientist or researcher who**

Created domain-specific models  
Is always up-to-date with the latest papers  
Knows how to quickly analyze a novel dataset to develop hypotheses and insights  
A world-class leader in your field excited to apply AI to your industry  
Anyone with a passion for AI and unique skills to offer

**Jury Criteria**

*All projects will be judged on 5 criteria by the jury. All criteria are equally important. Each criterium will get a score between 1-10. Below is a list of the 5 criteria:*

1. Novelty - How innovative is the proposed solution?
2. Interesting use of AI - How effective/appropriate is the use of AI in the application?
3. Presentation - Is the project easy to understand? Is it easy to understand how the application works?
4. Relevance - How relevant is the project in relation to the themes of the hackathon?
5. Scalability - How scalable is the project? Can the solution be brought to the market?

## Prizes

**First Place:** \$25,000 of API credit from OpenAI & \$1000 - Per Team

**Second Place:** \$10,000 of API credit from OpenAI & \$500 - Per Team

**Third Place:** \$5000 of API credit from OpenAI & \$100 - Per Team

## Timeline

***Video Pitch: October 20th 11:59 EST***

***Finalists Announcement: October 21st***

***Optional Virtual Pitch Coaching: October 23rd***

- Participants will have the option to sign up for virtual office hours

***Demo & Pitch: Oct 26th in NYC***

*Showcase & Awards*

- All finalists will present their demos
- Selected finalists will present their innovative solutions on-stage during the Conference.

If you have any questions please feel free to reach out to [alisha@mitaiconference.org](mailto:alisha@mitaiconference.org) .