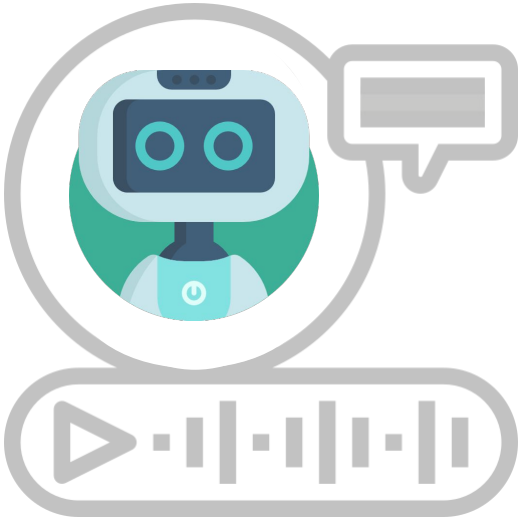


AI Alliance
for Audio Analytics

lab lab ai

ChatGPT API & Whisper API Global Hackathon on 2023

Team Members

Rema Algunaibet

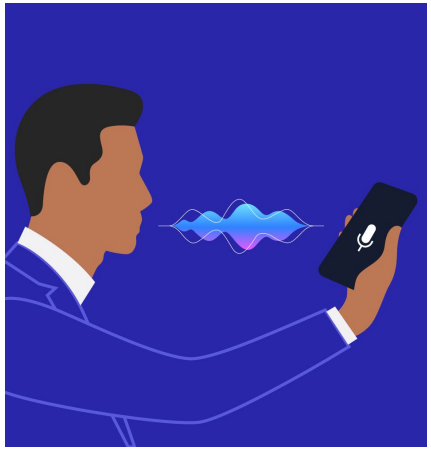
Khalid Alnujaidi

Problem Statement

- Call centers face challenges such as lost customers, low satisfaction rates, and missed opportunities for revenue generation
- Audio Analytics with AI can revolutionize the call center industry:
  - Automated accurate quality assurance
  - Improved customer experiences hence increased revenue

Solution

AI conducting quality assurance on call center's recorded calls



- Transcribing the speech in the call to text (STT) using **Whisper**
- Employing Large Language Model (LLM) via **GPT-3** for:
  - Extraction of essential data points
  - Sentiment analysis
  - Evaluating customer satisfaction
  - Issue & solution summarisation
  - Feedback including areas of improvement for the operator

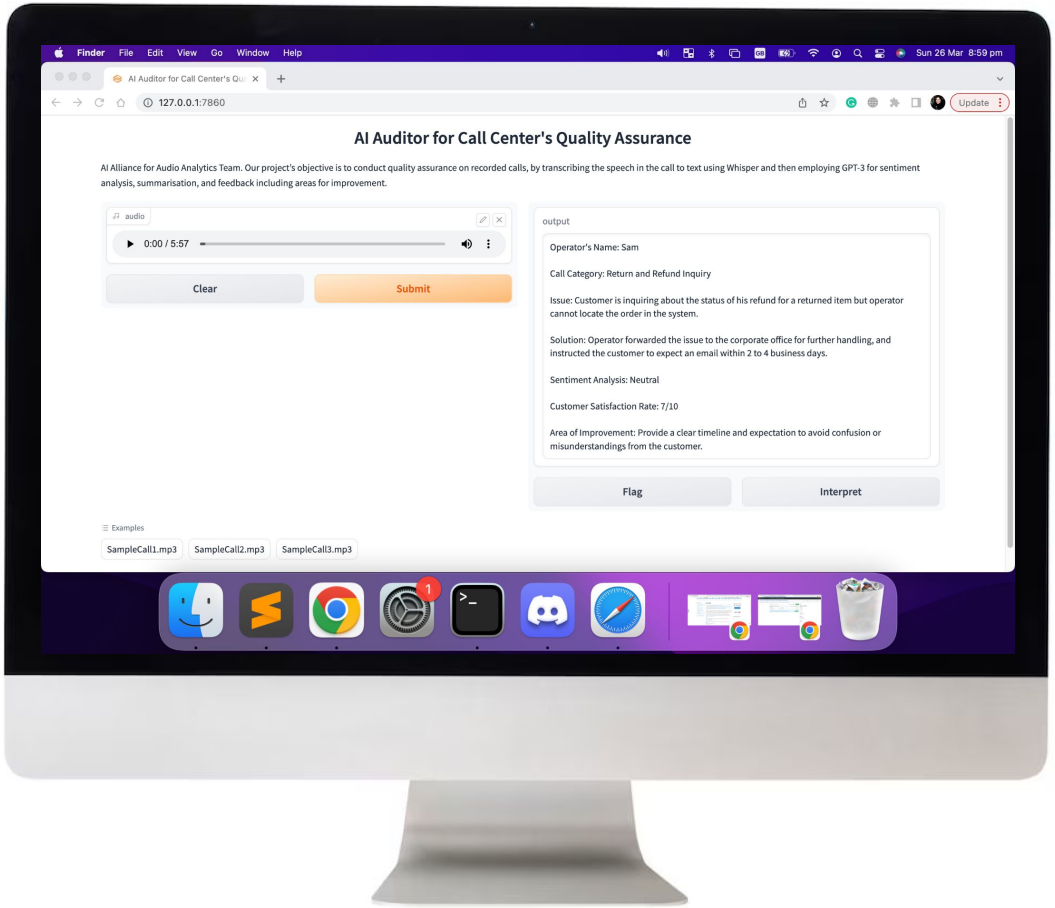
UI & Example

Audio Segmenting

Automatically transcribes audio to text

LLM extracts key data points such as operator name, issue, & solution

Automatically categorises the call



LLM conducts sentiment analysis

LLM evaluates customer's satisfaction

LLM provides areas of improvement for the operator

Market Potential

- The **global call center market** is projected to reach $496 billion by 2027, with a CAGR of 10.5% from 2020 to 2027. *(source: Allied Market Research)*
- **Call center outsourcing** is a $75 billion industry, and is projected to grow at a CAGR of 3.5% from 2020 to 2027. *(source: Grand View Research)*
- By 2025, the **global voice recognition market** is expected to reach $27.16 billion, with a CAGR of 17.2% from 2020 to 2025. *(source: MarketsandMarkets)*
- The use of AI in call centers can reduce call time by up to 35% and increase customer satisfaction by up to 16%. *(source: IBM)*
- 70% of customers prefer self-service options, and AI-powered virtual agents can handle up to 80% of inquiries. *(source: Accenture)*

With such a massive market potential and proven benefits of AI-powered call center solutions, Audio Analytics with AI is poised to disrupt the call center industry and provide businesses with a competitive edge.

Competition

	TranscribeMe	Speechmatics	**AI Alliance** for Audio Analytics
Transcribing: Speech-to-Text (STT)	✓	✓	✓
AI Analytics	✖	✖	✓
Summarisation & Categorisation	✖	✖	✓
Customer Experience & Satisfaction Assessment	✖	✖	✓
Sentiment Analysis	✖	✖	✓
Area of Improvement Feedback for Operator	✖	✖	✓

Code Repository & Demo

GitHub Repository:
https://github.com/remaalgunaibet/AI-Alliance-for-Voice-Analytics---LabLab.ai-ChatGpt-Whisper-Hackathon

Try it now via this demo link:
https://huggingface.co/spaces/khalidnu/AI-Alliance-for-Audio-Analytics

Team Contact Details

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