AutoGen Hackathon, Nov 2-3, 2023

PsychGen: Conversational AI for Personalized Psychotherapy

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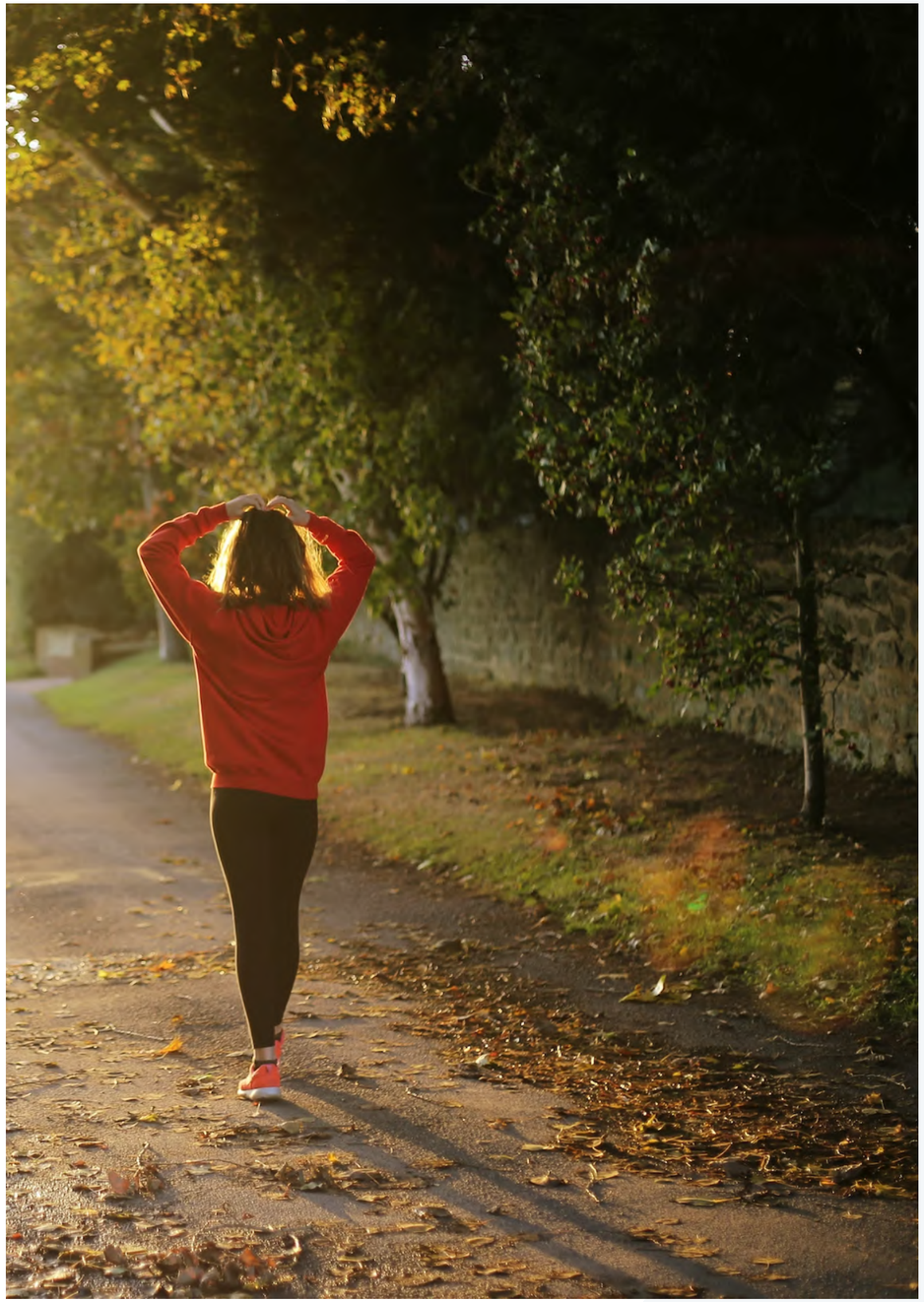

PROBLEM STATEMENT

Rising rates of mental health conditions

Increasing prevalence of depression, anxiety, and other mental health issues globally.

Treatment gap and access barrier

Many who need mental healthcare do not receive it due to high costs, stigma, and limited availability of providers

Standard therapy models have limitations

Traditional in-person therapy may not meet everyone's needs or preferences

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SOLUTION

AI-driven personalized psychotherapy sessions

PsychGen utilizes advanced AI techniques like large language models to generate personalized psychotherapy sessions for each patient.

Transition from text-to-audio, audio-to-music, and finally to video using AutoGen

By transitioning from text to audio, music, and video, PsychGen aims to make mental healthcare more accessible and affordable for all.

A step towards democratizing mental healthcare

Real-time, personalized mental health support

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AUTOGEN AGENTS

Technology applied

PSYCHOLOGICAL CHATBOT

Profiling and initial psychotherapy script generation by different agents that comunicate with each other

AutoGEN

SPEECH GENERATION

Speech production based on script

AssemblyAI

MUSIC GENERATION

Crafting a meditation track for relaxation and introspection

AudioCraft

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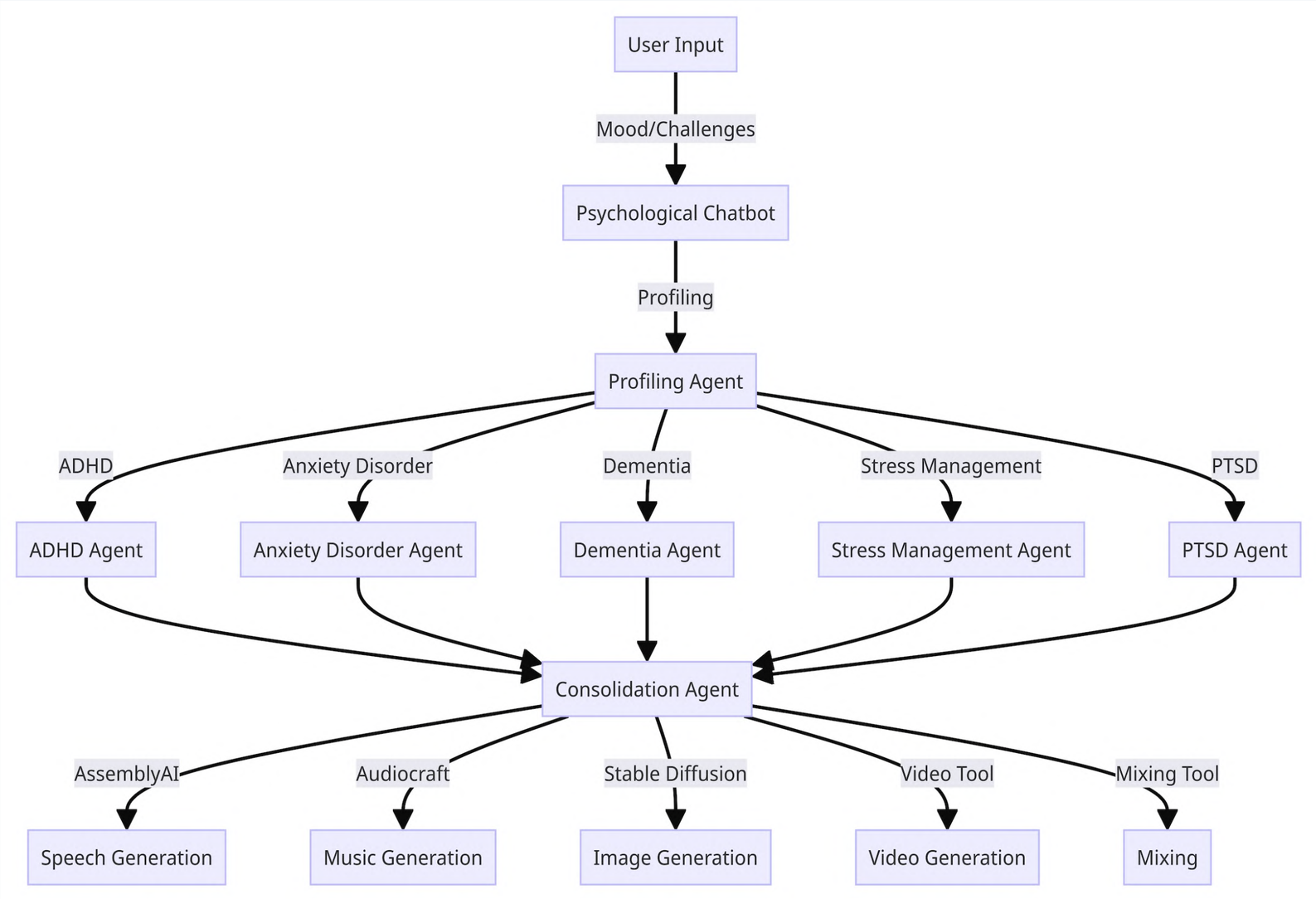
MODEL PIPELINE



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UNIQUENESS OF PSYCHGEN

01

MULTI-AGENT PLATFORM USING AUTOGEN

AutoGEN implementation

02

TEXT TO AUDIO/ VIDEO

Seamless transition from text to audio, audio to music, and video to enrich the therapeutic experience

03

MULTI-FACETED AI AGENTS

Pyshcotherapist | Cognotherapist | PTSDTherapist | EmotionalTherapist

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POTENTIAL IMPACT

01

DEMOCRATIZING ACCESS TO PSYCHOTHERAPY

Affordable Mental Health Access at finger tips

02

REAL-TIME, PERSONALIZED MENTAL HEALTH SUPPORT

Responsive and customized support with conversations memory.

03

SCALABILITY AND INTEGRATION WITH OTHER MENTAL HEALTH RESOURCES

Integration with online apps and other mental health services.

Psychological Counseling - > Script Generation - > Voice Guided Therapy - > Mp3 generation → Mp4 Generation

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RESEARCH AND DEVELOPMENT

- 20+ years of team research experience.
- 3 research papers on AI in Psychology.
- AI-based Psychgen is prompt engineered from years of psychological therapy experience.

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NEXT STEPS

INCORPORATE AI FOR TRANSCRIPT ANALYSIS

Use natural language processing to analyze therapy session transcripts. Identify themes, emotions, and patterns to guide interventions.

EXPLORE AI-GUIDED INTERVENTIONS

Research and test using AI to recommend personalized interventions based on patient data and therapy progress.

IMAGE GENERATION

Generate Images as per psychotherapy script

VIDEO GUIDED THERAPY

Generate Video - based on image or script - guided meditation ready to be uploaded to youtube.

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COMPANY NAME

Q3

2024

nice@email.com

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