Reflect

Making Mental Health More Accessible

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“Build something that solves real problems and uses real data”

Mental Health: An Underserved Silent Crisis

According to the NIH, about 3 in 4 individuals with any mental disorder did not receive treatment in the past 12 months.

We built this because we needed it.

In the moments of:

disorientation in freshman year... to the pressure of senior recruiting season (and stressful times in between)

Major Depressive Disorder in the US

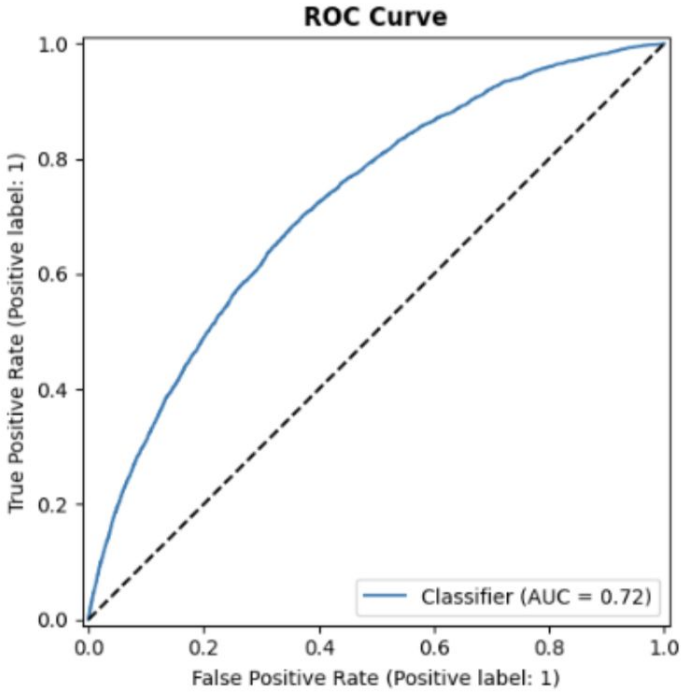
Major Depressive Episode (MDE) affects 1 in 9 US adults annually, but most people don't seek treatment (NSDUH)

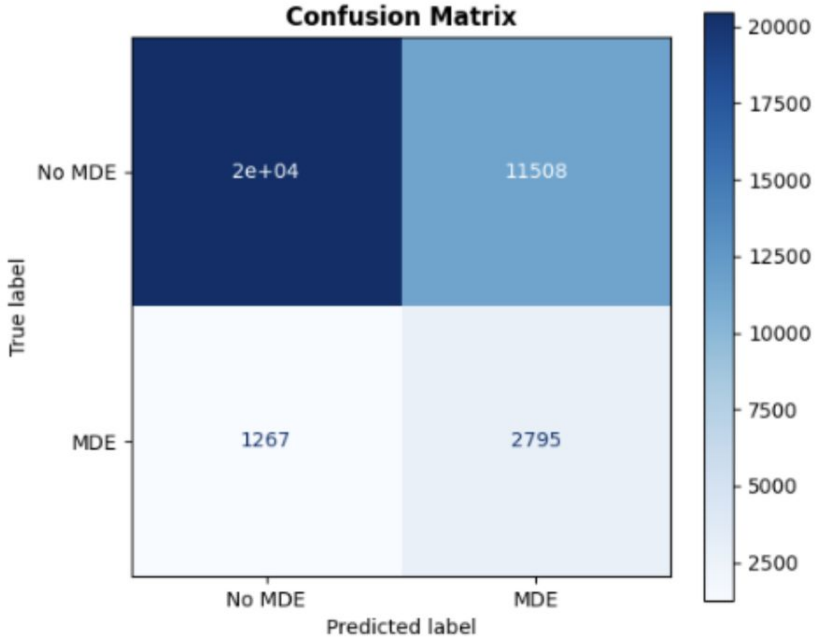
Read our full analysis! →

Mental health crisis can seem silent, but using a Random Forest Model on ~180k adult patients, **we found that we were able to predict whether someone had MDE based on:**

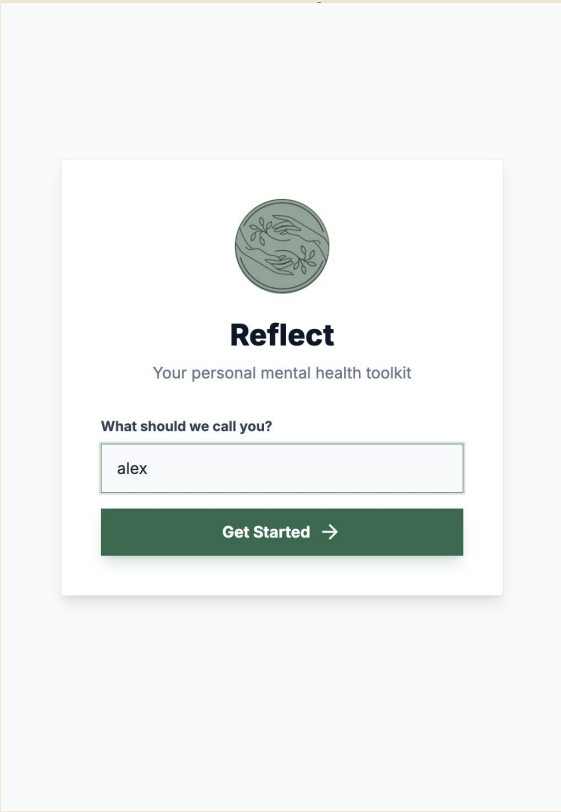
Age, Sex, marital status, Employment, substance use patterns, (All without requiring any clinical screening)

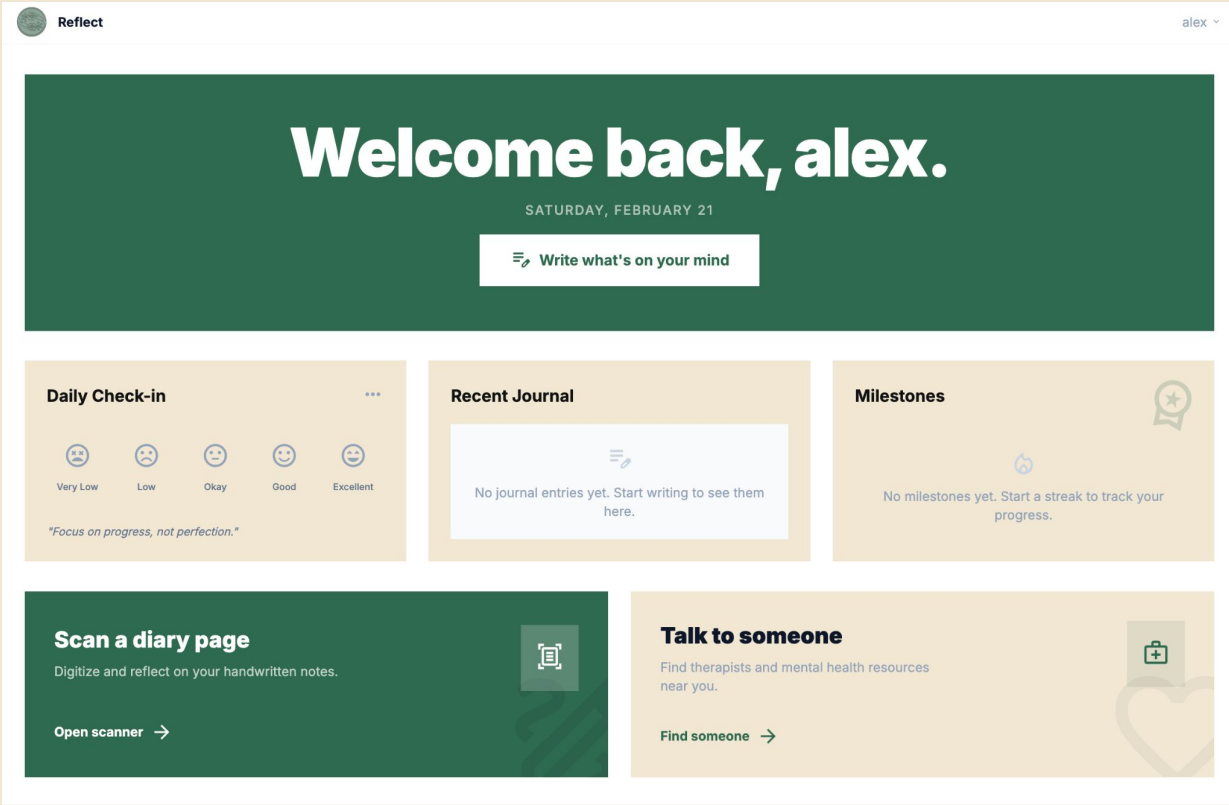
The Gap: Major Depressive Disorder





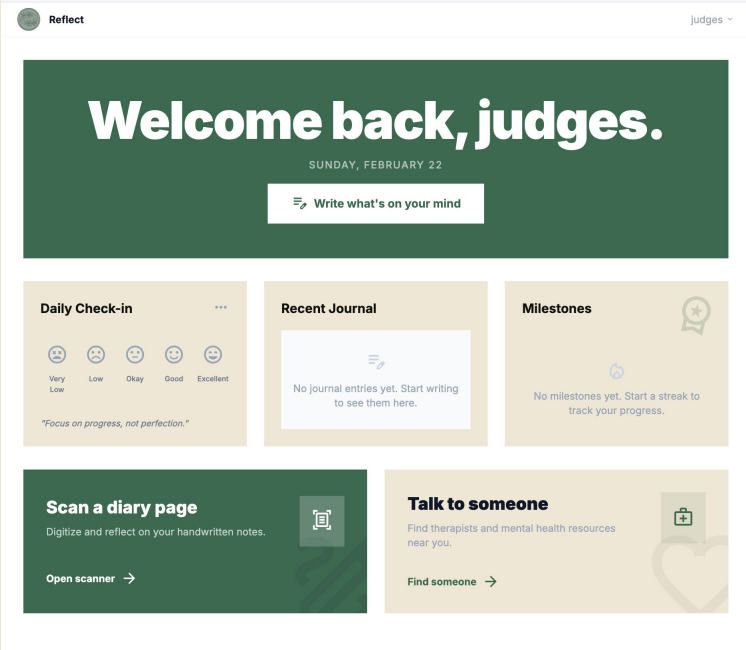
Introducing Reflect

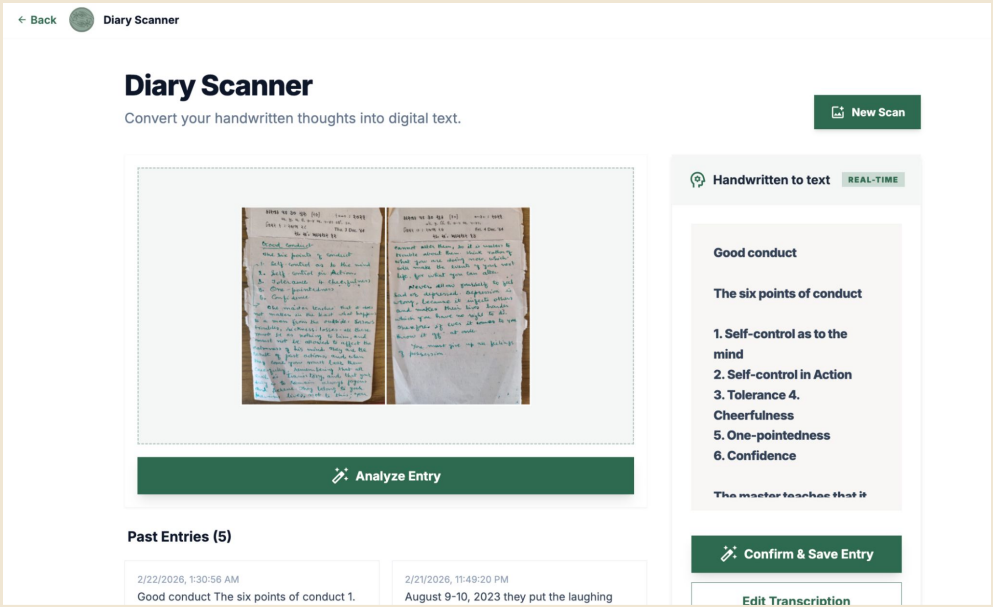

Reflect
Your personal mental health toolkit
What should we call you?
alex
Get Started


Reflect
alex
Welcome back, alex.
SATURDAY, FEBRUARY 21
Write what's on your mind
Daily Check-in
Very Low
Low
Okay
Good
Excellent
"Focus on progress, not perfection."
Recent Journal
No journal entries yet. Start writing to see them here.
Milestones
No milestones yet. Start a streak to track your progress.
Scan a diary page
Digitize and reflect on your handwritten notes.
Open scanner
Talk to someone
Find therapists and mental health resources near you.
Find someone

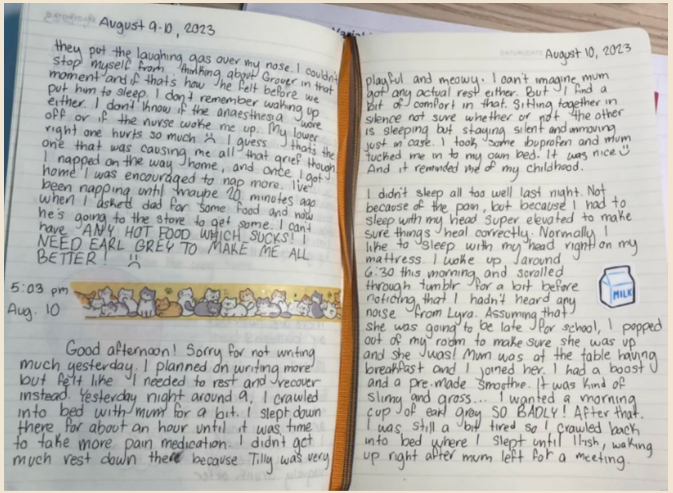
Frontend

Key Components





Backend
Key Components


August 9-10, 2023

they got the laughing gas over my nose. I couldn't stop myself from thinking about Grover in that moment and if that's how he felt before we put him to sleep. I don't remember waking up either. I don't know if the anaesthesia wore off or if the nurse woke me up. My lower right one hurts so much it. I guess that's the one that was causing me all that grief though. I napped on the way home, and once I got home I was encouraged to nap more. I've been napping until maybe 20 minutes ago when I asked dad for some food and now he's going to the store to get some. I can't have ANY HOT FOOD WHICH SUCKS! I NEED EARL GREY TO MAKE ME ALL BETTER!

5:03 pm
Aug. 10

Good afternoon! Sorry for not writing much yesterday. I planned on writing more but felt like I needed to rest and recover instead. Yesterday night around 9, I crawled into bed with mum for a bit. I slept down there for about an hour until it was time to take more pain medication. I didn't get much rest down there because Tilly was very

August 10, 2023

playful and meowy. I can't imagine mum got any actual rest either. But I find a bit of comfort in that. Sitting together in silence not sure whether or not the other is sleeping but staying silent and annoying just in case. I took some ibuprofen and mum tucked me in to my own bed. It was nice
And it reminded me of my childhood.

I didn't sleep all too well last night. Not because of the pain, but because I had to sleep with my head super elevated to make sure things heal correctly. Normally I like to sleep with my head right on my mattress. I woke up around 6:30 this morning and scrolled through tumblr for a bit before noticing that I hadn't heard any noise from Lyra. Assuming that she was going to be late for school, I popped out of my room to make sure she was up and she was! Mum was at the table having breakfast and I joined her. I had a toast and a pre-made smoothie. It was kind of slimy and grass... I wanted a morning cup of earl grey SO BADLY! After that, I was still a bit tired so I crawled back into bed where I slept until 11ish, waking up right after mum left for a meeting.

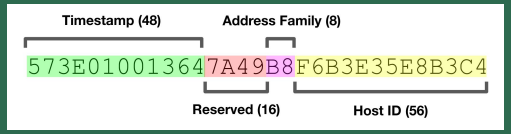
MILK

Google Maps API:
Used to calculate accurate driving distances in seeking nearest mental health.

SAMHSA Dataset:
Substance Abuse and Mental Health Services Administration (US Federal Agency). Data contains ~9000 mental health facilities in the US (we used their location info lat and lng)

Image → Text: Taking journal image → GPT-4o vision API → supabase storage.

Saving user data: Backend generates UUID on first visit.



Supabase (Database) Tables - storing data

Facilities

Cols:id, address info + lat, lng, geocoded_at

Purpose: Stores mental health facilities from the SAMHSA dataset

Entries

Cols: id, text, user_id, created_at

Purpose: Stores Diary scan transcriptions

Future Steps

- **Improve therapist sorting by specialization and insurance coverage**
- **Enhance the AI to respond more empathetic and flag distressing signals in real time**
- **Expand SAMHSA dataset filtering by insurance type, specialty, and availability**
- **Improve mood tracking to visualize meaningful health trends over time in-app**
- **Explore data privacy best practices for health applications**

Thank You, Questions?

Citations

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- **Used Claude with debugging**

Tech stack

Frontend

- React 18 + Vite
- Tailwind CSS (CDN)
- Google Fonts: Inter + Lora

Backend

- Node.js + Express
- OpenAI API (diary scanner transcription)
- Google Maps API (Distance Matrix + Geocoding)
- Multer (image uploads)
- UUID + cookie-parser (user identity)

Database

- Supabase (PostgreSQL) — stores users, diary entries, facilities

Storage

- localStorage — journals, mood entries, milestones/streaks (per user)

Potential Questions and Answers: