BoulderCoach
Smarter Training
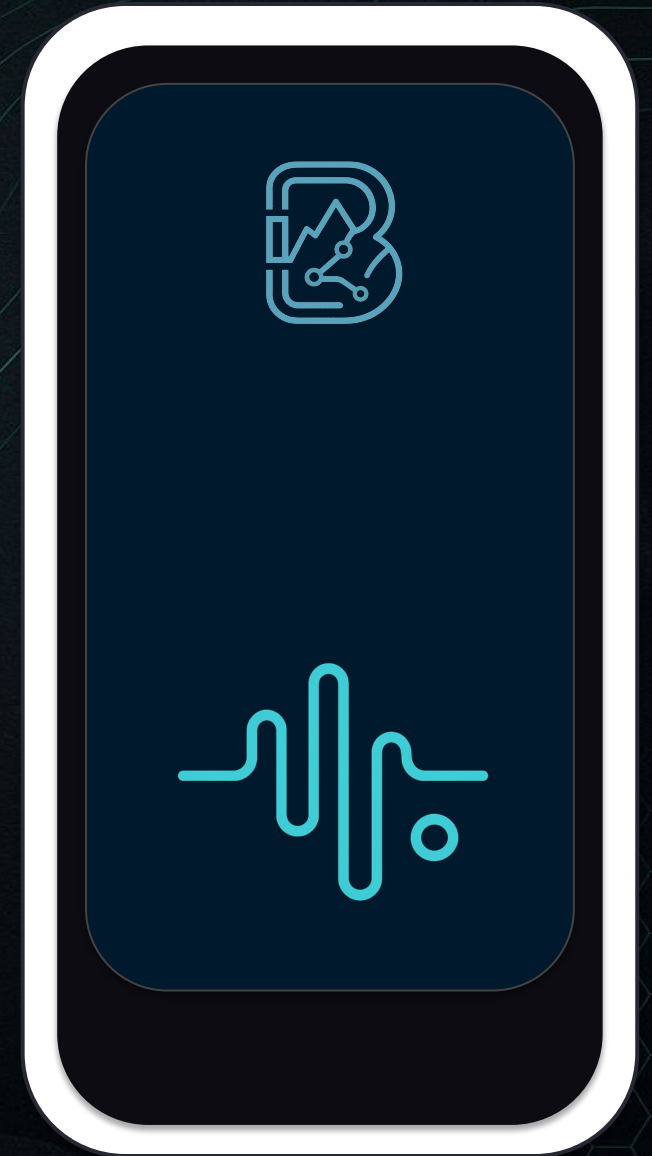
Climbing without progress is frustrating:

- Late feedback

- No attempt-level tracking

- Rest gaps waste time

Solution (MVP)

A voice-first bouldering coach AI App

🎤 Pre/Post voice guidance

🔕 Distraction-free coaching

📋 Instant logging (send, High Point, RPE)

🔄 Adaptive plan on the spot

Start climbing in seconds
Onboarding

- Ask only the essentials: name, level, goal.

- Personalized session from the very first attempt.

- No long forms, zero friction.

Session Configuration

Type
Training

Level
V4

Goal
Technique

Selected Problem
Overhang Problem #1

▷ Start Quick Session

Features

Real-time Analysis
AI pose detection

Video Upload
MP4 file analysis support

Session Tracking
Detailed attempt analytics

View Session History

Session Flow

PRE (voice)

ATTEMPT

POST → REST → SUMMARY

Focus & setup
Beep start/stop

Video + 3 X 3 grid
Silent climb

Send

High Point

RPE

Adaptative rest &
next try

Features

Pre-Session Checklist

- 🟢 Camera/video ready
- 🟢 Climbing holds visible
- 🟢 Good lighting conditions
- 🟢 Full body in frame

What Will Be Analyzed

- Elbow angles (overextension detection)
- Torso alignment and position
- Hip displacement from wall
- Overall body positioning

Real-time feedback will alert you to form issues as they're detected.

← **Recording Attempt**

✓ **Analysis**   `3 issues detected`

Analysis complete! 869/915 frames analyzed

| Frames: **869/915** | Avg Torso: **16.8°** |
| L Elbow: **151.4°** | R Elbow: **154.2°** |

Video Source

〰 Live Camera   ⬆ Upload MP4

▶ **Boulder01.mp4**   13.9 MB
30.0s • 1920x1080 • 30.5fps

Python Analysis Output
✓ Pose landmarks detected
✓ Form issues highlighted
✓ Angle measurements shown
⚠ 3 issues found

Voice & Adaptation

Your personal coach, always with you

- 10–15 precise cues per session

- Real-time performance check (RPE / High Point)

- Instant rest & strategy adjustments

Data We Capture
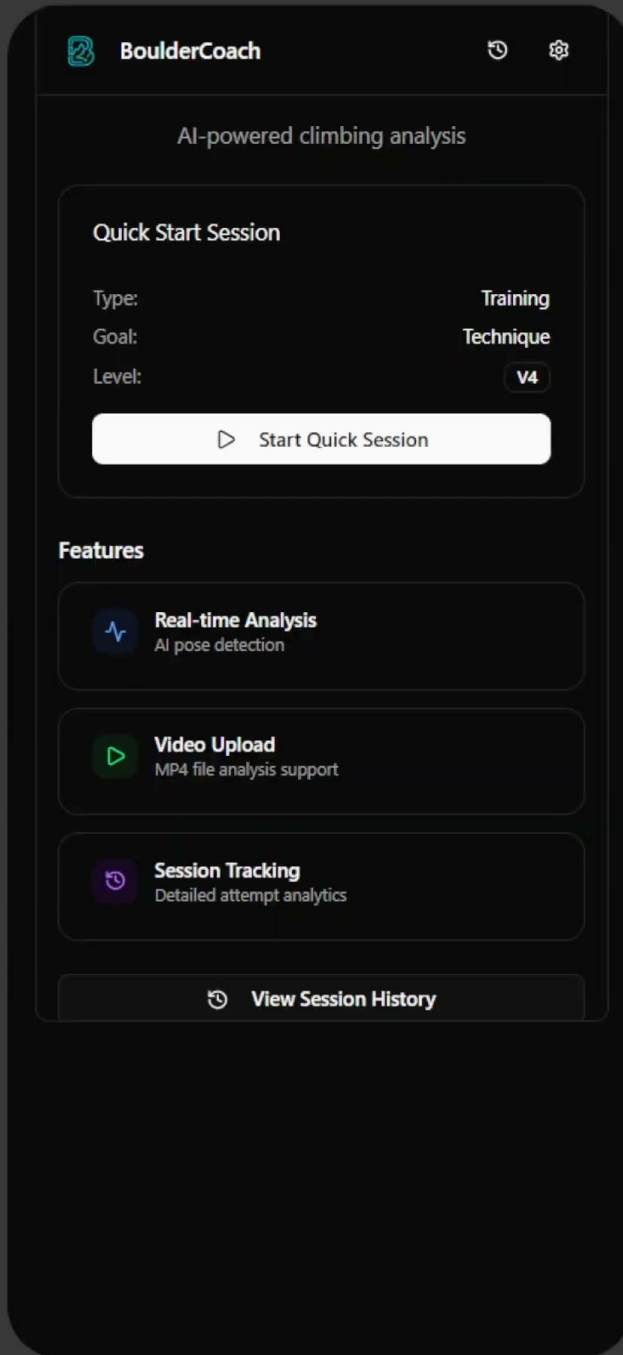## Data that drives your progress

- Success or failure of each attempt

- High Point (0–100) to track real progress

- Perceived effort (RPE 1–10) for smart load management

KPIs / Session Results

- Send Rate (%) – Percentage of successful attempts

- Best High Point – Maximum progress achieved in the session

- Avg. RPE & Volume – Perceived effort and total training load

- Improvement Trend – Performance evolution over time

Technical Architecture

How it works

- PWA / React Native App – instant access.

- ElevenLabs Voice – fast & natural.

- Local DB – data safe, even offline.

- Tool-calls – instant logging & queries.

Roadmap

- Roadmap – Next Steps

- Biometrics & wearables – advanced tracking

- Menstrual cycle – private & optional

- Camera + 2D pose – live technical feedback

- Adaptive projects – based on real data

Team and Next Steps – Roles and Roadmap

- Clear roles: dev, design, marketing, product

- Consult mentors for validation

- Prepare demo and pilot

- Post-hackathon goals: scale and measure success

QR Repo   QR Video