

FocusMate!

A Smart Desktop Companion for Deep Focus

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Motivation

Challenges of Digital Distraction

- Fragmented attention leads to low efficiency

Limitations of Existing Tools

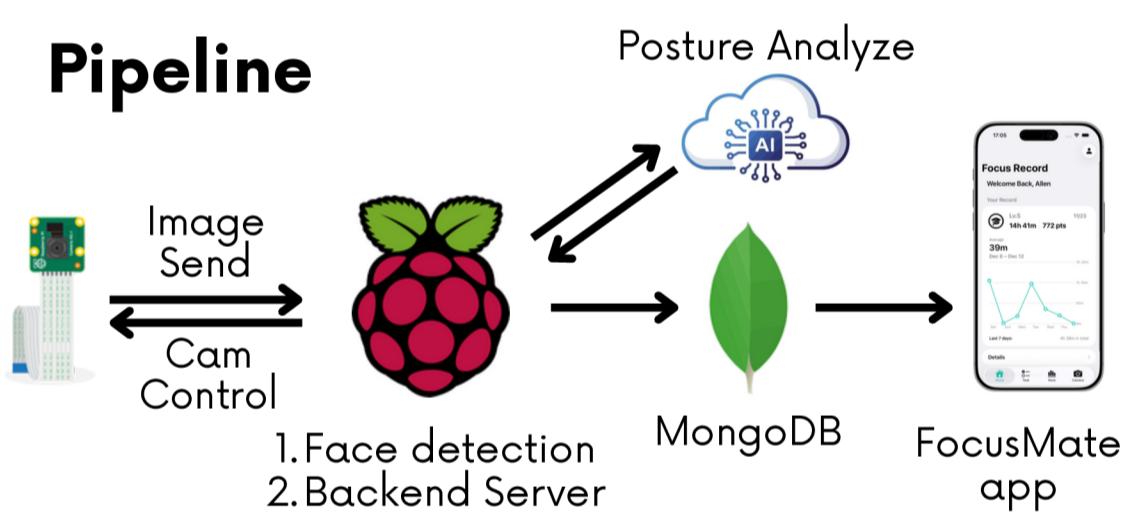
- Lack of objective monitoring and only detect if the screen is on

Enhancing Study Experience

- Quantifying actual focus time
- Making focus fun and social

Methodology

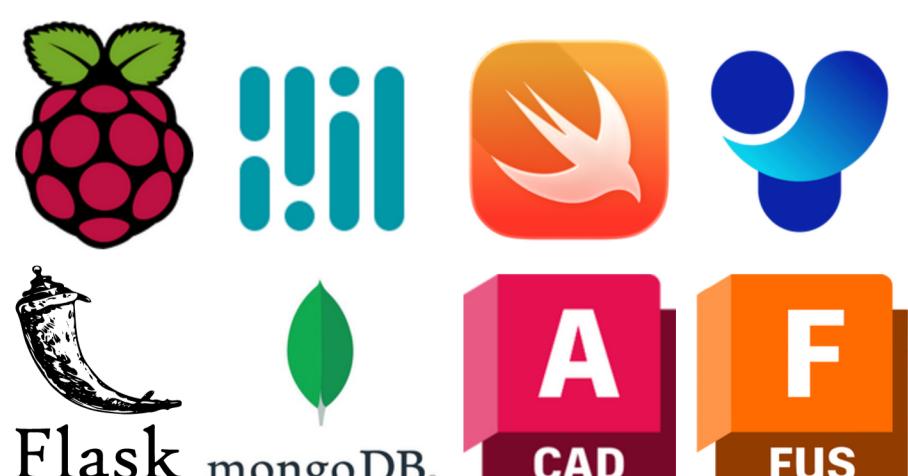
Pipeline



Posture Analyze

- **Initial Calibration:** Sets personal baseline using the first 20 frames.
- **Score Penalties** (Unfocused behaviors)
 1. Phone Detected
 2. Absence: Face not detected
 3. Sleeping: Eyes closed > 0.5s
 4. Head Down: Posture too low
 5. Looking Away: Gaze left or right

Technology

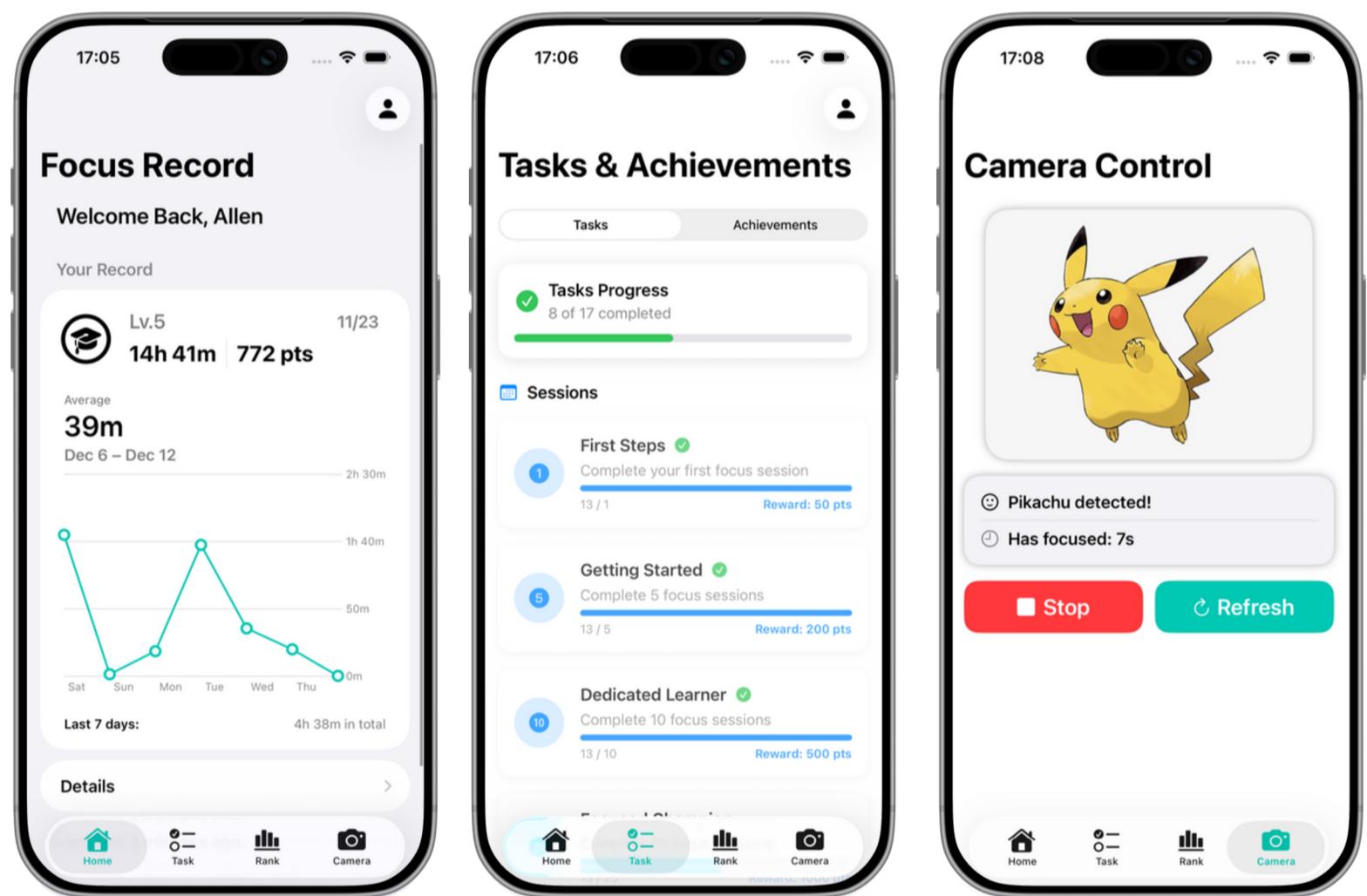


App

- Fetch focus index from the database.
- View the analytic data and focus trend.
- Control your camera with just your phone.
- Finish the designated tasks and get achievement badges!
- Using native Swift & SwiftUI programming language, with optimized performance.



Download Beta App



Hardware

- 3D-printed servo mounts
 - Heat-staked brass inserts
- Chamfered corners
 - Improved aesthetics
- Laser-cut enclosure
 - Rapid fabrication
- RPi + Pi camera
- OLED screen

