

Drowsy

Catch those ZZZs

Problem Statement

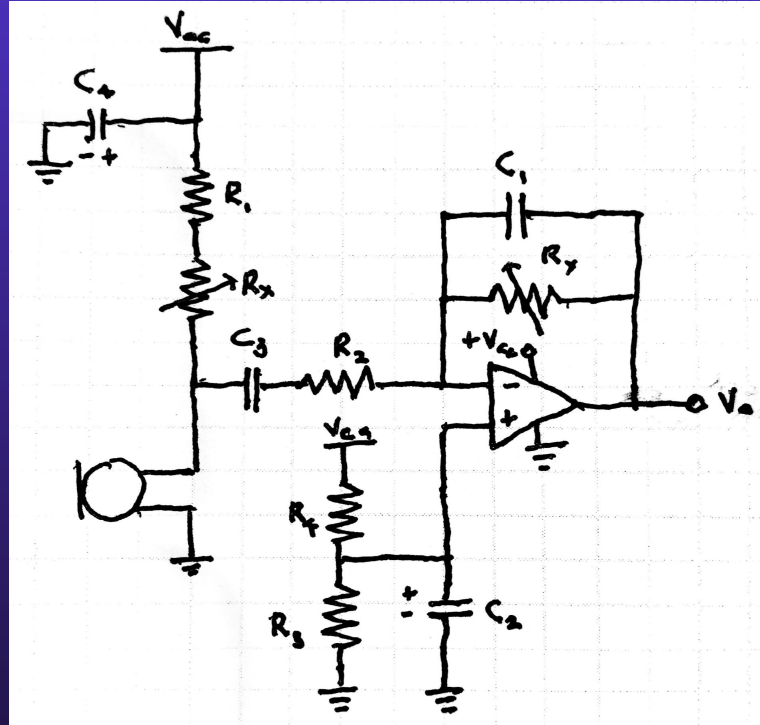
- Prevalent sleep deprivation and poor sleep schedules among university students
- Negative impact on academic performance and overall well-being
- Lack of personalized and effective solutions for better change
- Need for a user-centric web app to educate, guide, and motivate students
- Our solution, Drowsy, aims to empower students to prioritize sleep and excel academically.

Existing Solutions

- Sleep Tracking Apps - Ex. Sleep Cycle, FitBit Sleep Tracker
 - Lack of user personalization, does not address root problem of sleep issues, provides little incentive to motivate changes in sleep behavior
- Game-based Alarm Apps - Ex. Walk Me Up
 - Does very little to ensure consistency and quality of sleep hours, rewards users with games based on waking up which does not promote significant changes in lifestyle
- Sleep Tracking Accessories - Ex. Fitbit, Oura Smart
 - Inconvenience in having to wear a physical product to track sleep
 - Sleep tracking devices often expensive, not an ideal solution for individuals who want to rectify their sleep habits

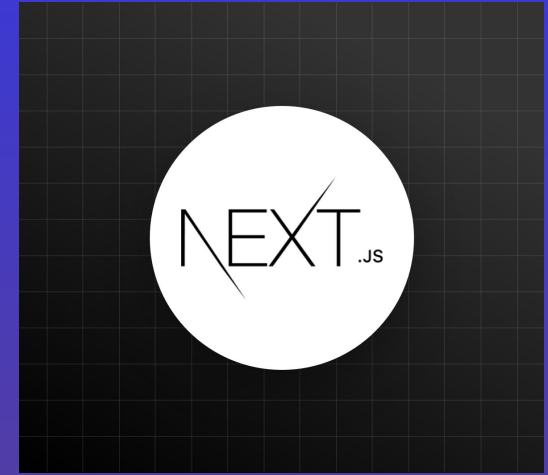
Methodology

Hardware Design 💡

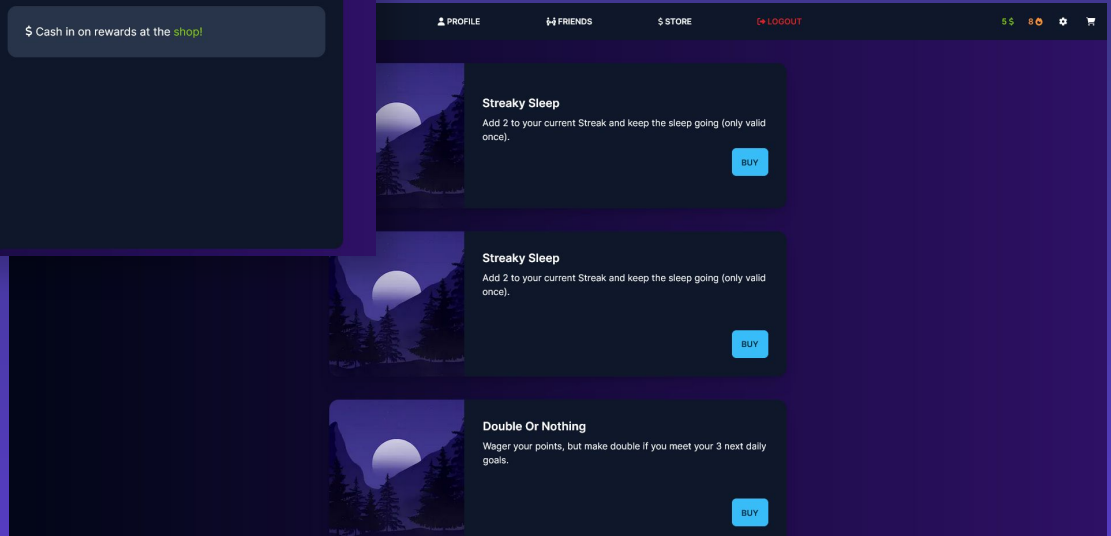
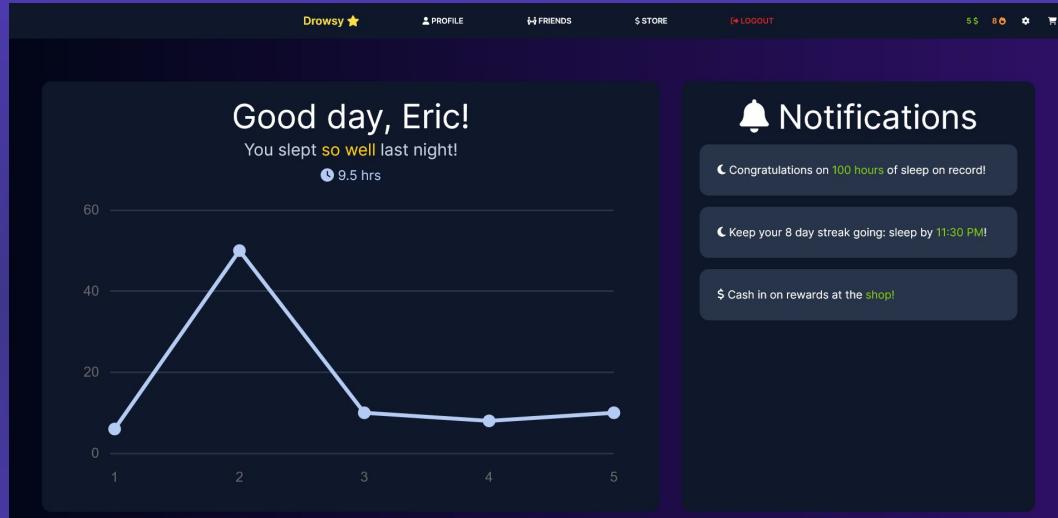


Technology Stack

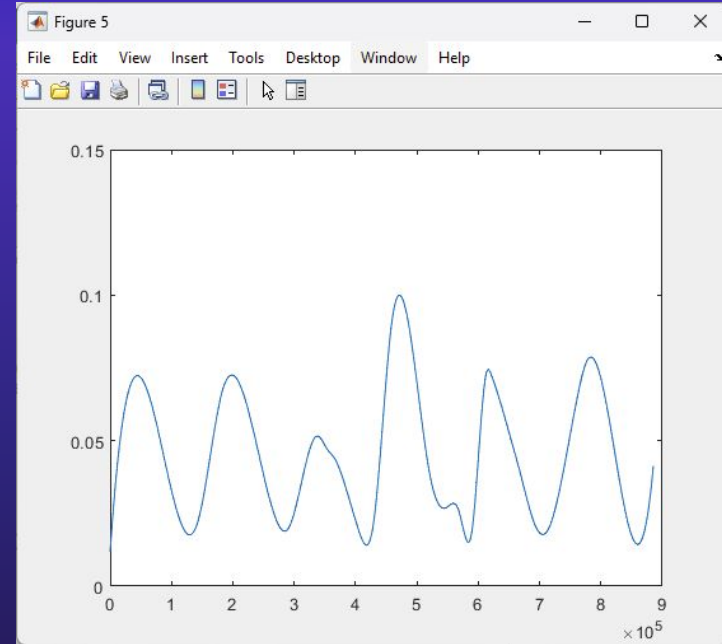
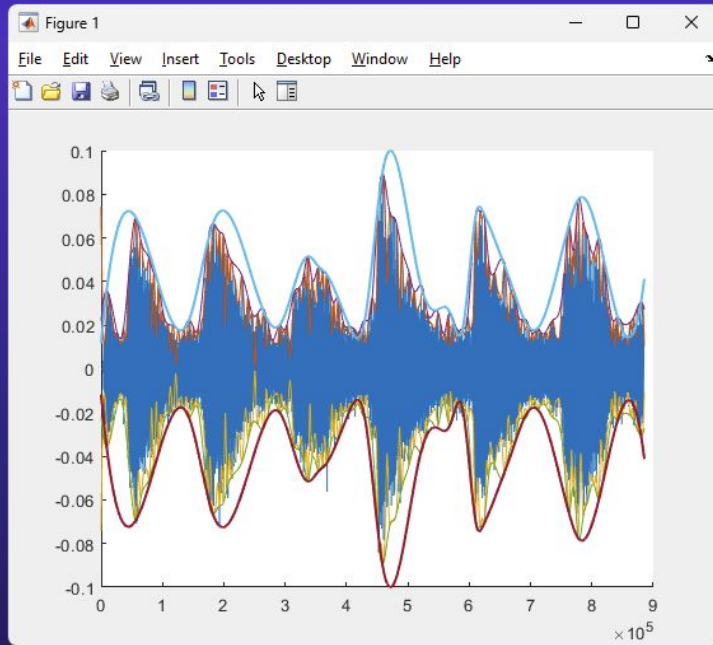
- Next.js - Website
- Appwrite - User account and data storage
- MATLAB - Data processing



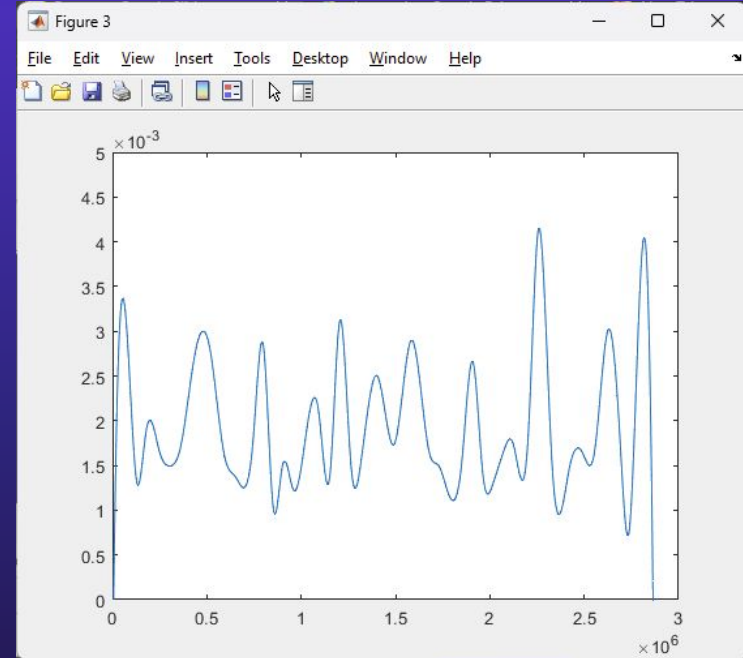
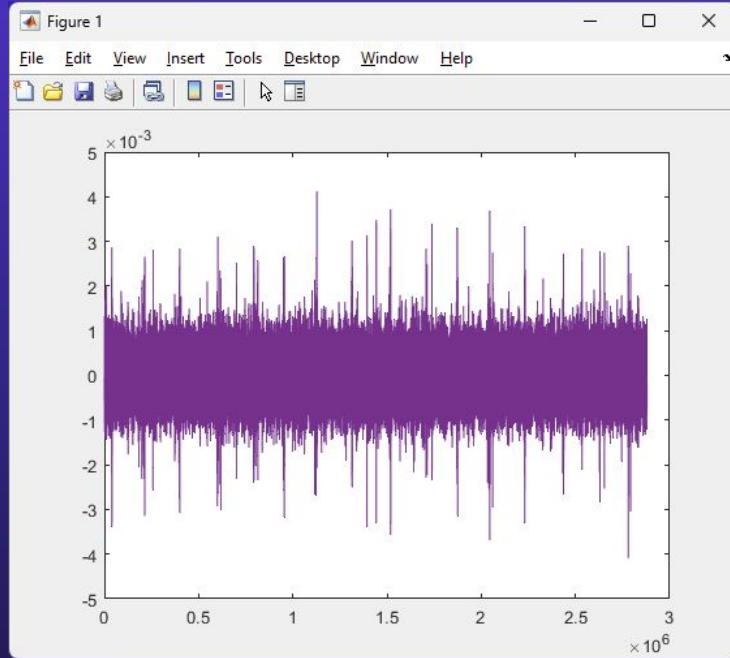
Design and UI - proof of concept



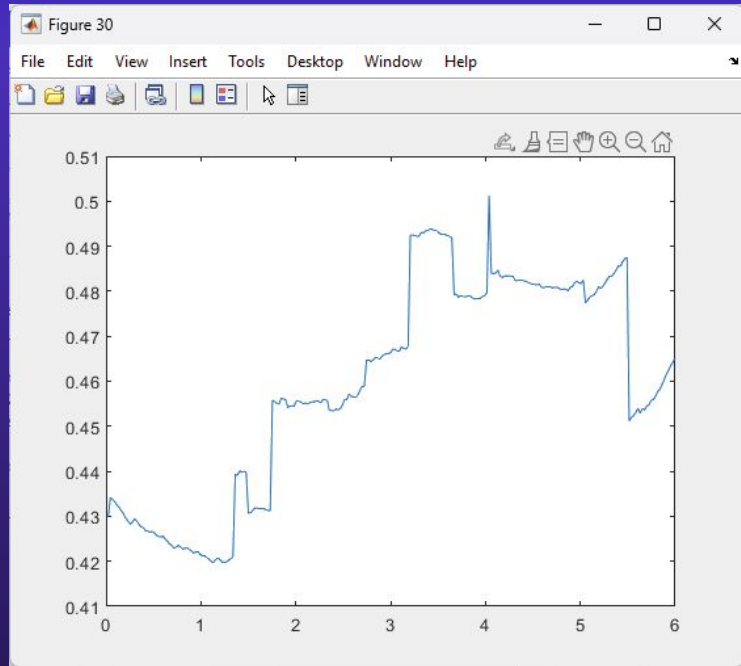
Sleep Insights



Sleep Insights



Sleep Insights



Next Steps

- Mobile App implementation for smartphones and wearables
 - Varied data analytics to benefit from built-in sensors
 - Notification features can be used for profile alerts
 - Accessibility
- Improved Signal Processing
 - Recognize health-related trends through respiratory patterns
 - Referrals to medical professionals