

WorkoutEvaluator

iOS app that provides personalized exercise feedback
through user-inputted information



Evan Nelson

Why me? Why this app? Why it's awesome?

Why Me?

- Fitness passion
- Already constructed app outline
- User / Developer

Why This App?

- Existing apps overwhelming
- Feedback

Why It's Awesome

- Clean design / simplicity
- PR recognition

Why Does This Matter

- Doing anything without progress
- Motivation → Seeing real progress over time makes people want to keep training.
- Everyone tracks something → money, steps, sleep, grades, work goals.



Problem

- Thousands of fitness apps exist, each providing different pros and cons

- Whoop
- Garmin
- Apple Fitness



- Gray area of analytic feedback
- Opportunity to help users progress
- Collected data statistically shown isn't always accurate
 - Is user-inputted data more beneficial?



Data → Yes
Personalized Feedback → No

Opportunity

- Gym is a growing lifestyle choice
 - 32.8 million 2000
 - 64.2 million 2019
 - 77 million 2024
- Millions of people seek reliable and guidance
 - Approximately 29% of gym-goers actively work with personal trainers
 - In 2024, fitness apps were downloaded 850 million times



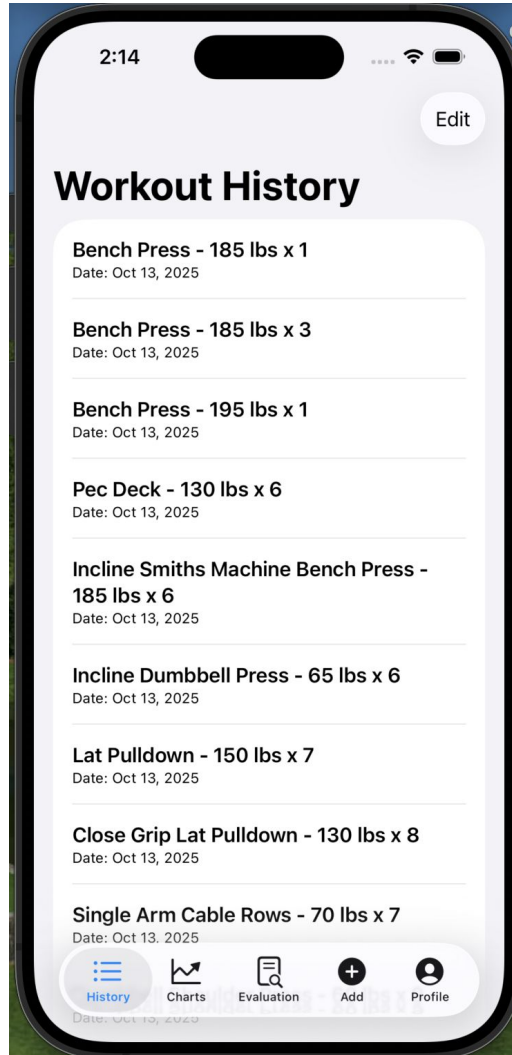
Early adopters can benefit greatly from data based feedback

Solution

- App that evaluates and compares workouts for you
 - Trends
 - Exercise progress
- Personalized recommendations based on goals or results
- Provides feedback to aid the user
- Utilizing user-inputted data
 - Automatic data collection vs Manual

App Page by Page

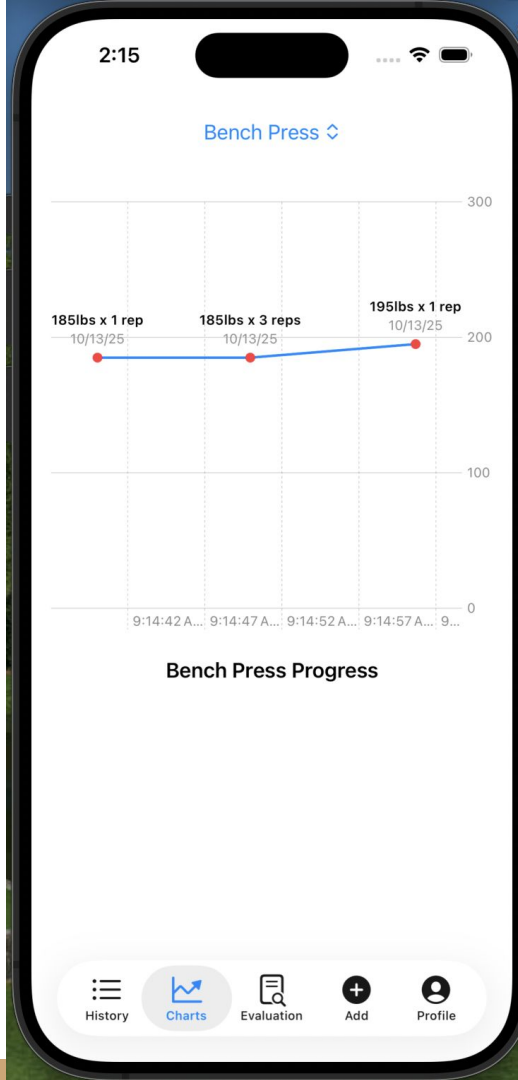
History



<https://formative.jmir.org/2023/1/e45298>

- Good insight into “logging frequency” being meaningful
 - Kittiya Sae-lee, Decho Surangsrirat, Chanatip Parlawong, T-touch Anawilkul, Narinuch Assawachamrun, Pawanya Boonbandan, Paweerata Ladapongpuwat, Bhawat Chupetch, Supatcha Thongchai, Nannapat Pruphetkaew, Therdpong Thongseiratch, Polathep Vichitkunakorn, Pitchayanont Ngamchaliew
 - 30 June 2023
 - JMIR Formative Research

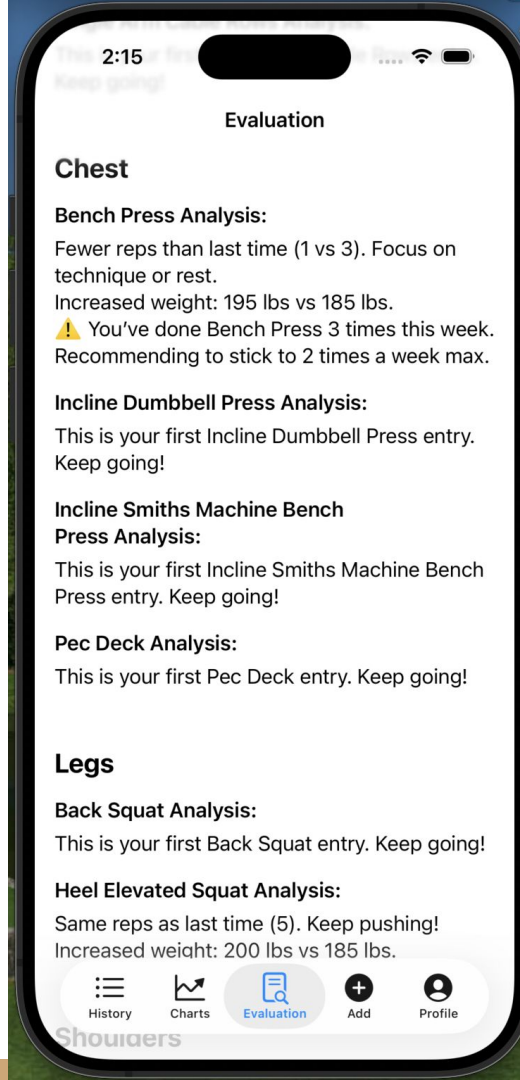
Charts



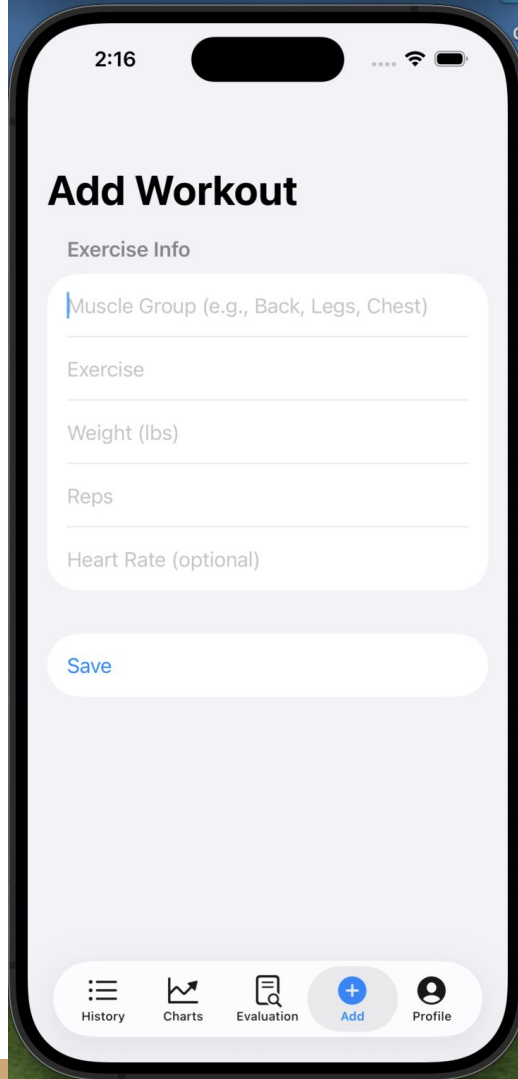
<https://pmc.ncbi.nlm.nih.gov/articles/PMC11070543/>

- Users valued visual “performance tracking” and quick data inputting
 - Yu-Peng Chen , Julia Woodward , Meena N Shankar , Dinank Bista , Umelo Ugwoaba , Andrea Brockmann , Kathryn M Ross , Jaime Ruiz , Lisa Anthony
 - 22 Apr 2024
 - Frontiers In Digital Health

Evaluation



Add Workout



A smartphone mockup displaying the 'Add Workout' app interface. The screen shows a title bar, a status bar at the top, and a bottom navigation bar. The main content area contains a form with five input fields and a 'Save' button.

2:16

Add Workout

Exercise Info

Muscle Group (e.g., Back, Legs, Chest)

Exercise

Weight (lbs)

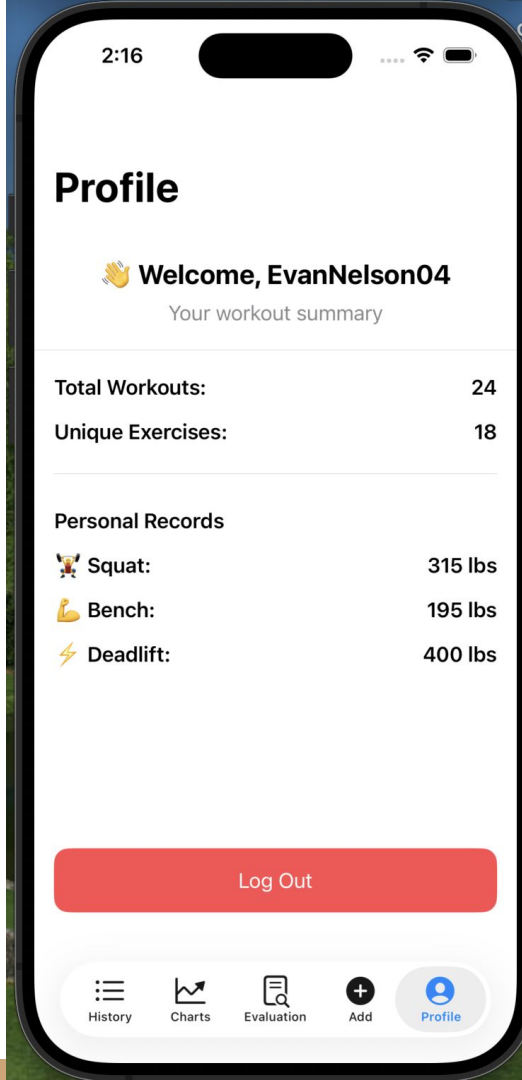
Reps

Heart Rate (optional)

Save

History Charts Evaluation Add Profile

Profile



<https://link.springer.com/article/10.1007/s11301-025-00537-1?>

- What makes people keep using fitness apps over time? (factors for long-term engagement)
 - 02 July 2025
 - Moyun Chen, K. Valerie Carl & Oliver Hinz
 - Management Quarterly Review

Experiment

Synthetic data experiment

- Data Volume & Performance:
 - Speed and responsiveness
- Visual Adaptability:
 - Screen sizes
- Data Structure & Query Efficiency:
 - Load time etc..
- Graph & UI Behavior:
 - Graph Compression



Next Steps

1. App Development
 - a. Create a more exciting ui
 - b. Better feedback for user
2. Gamification
 - a. Award for 100 workouts, 100 etc
3. Goal Tracking
 - a. User set goals



Demonstration

What to expect

1. User login system / account creation
2. Adding a workout
3. Visual before / after data entry
4. Evaluation

Q/A

- Much easier to use IOS app that allows users to quickly log their workouts and receive feedback
 - Using swift I have been able to over the course of months develop..
 - Workout Log
 - Visualization for progress
 - PR Tracking
- I have been actively learning app development and swift since last spring trying to understand the language and important things during app development
- My project is on track to complete something that has not been accurately completed, which will be able to actively aid users throughout their journey in the gym
- I have never been more excited about a project, which will help me by wanting to work on it much more often to implement and test different ideas

Citations

<https://www.mmcginvest.com/post/the-u-s-fitness-industry-membership-revenue-and-trends-in-the-post-pandemic-era?>

<https://www.aim7.com/blog/smartwatch-wearable-technology-accuracy>

https://link.springer.com/article/10.1007/s11301-025-00537-1?utm_source=chatgpt.com

https://pmc.ncbi.nlm.nih.gov/articles/PMC11070543/?utm_source=chatgpt.com

<https://formative.jmir.org/2023/1/e45298>