

Building Thoughtful ML Experiences

User-Centered Machine Learning Applications

James Dale — March 2023

Introduction

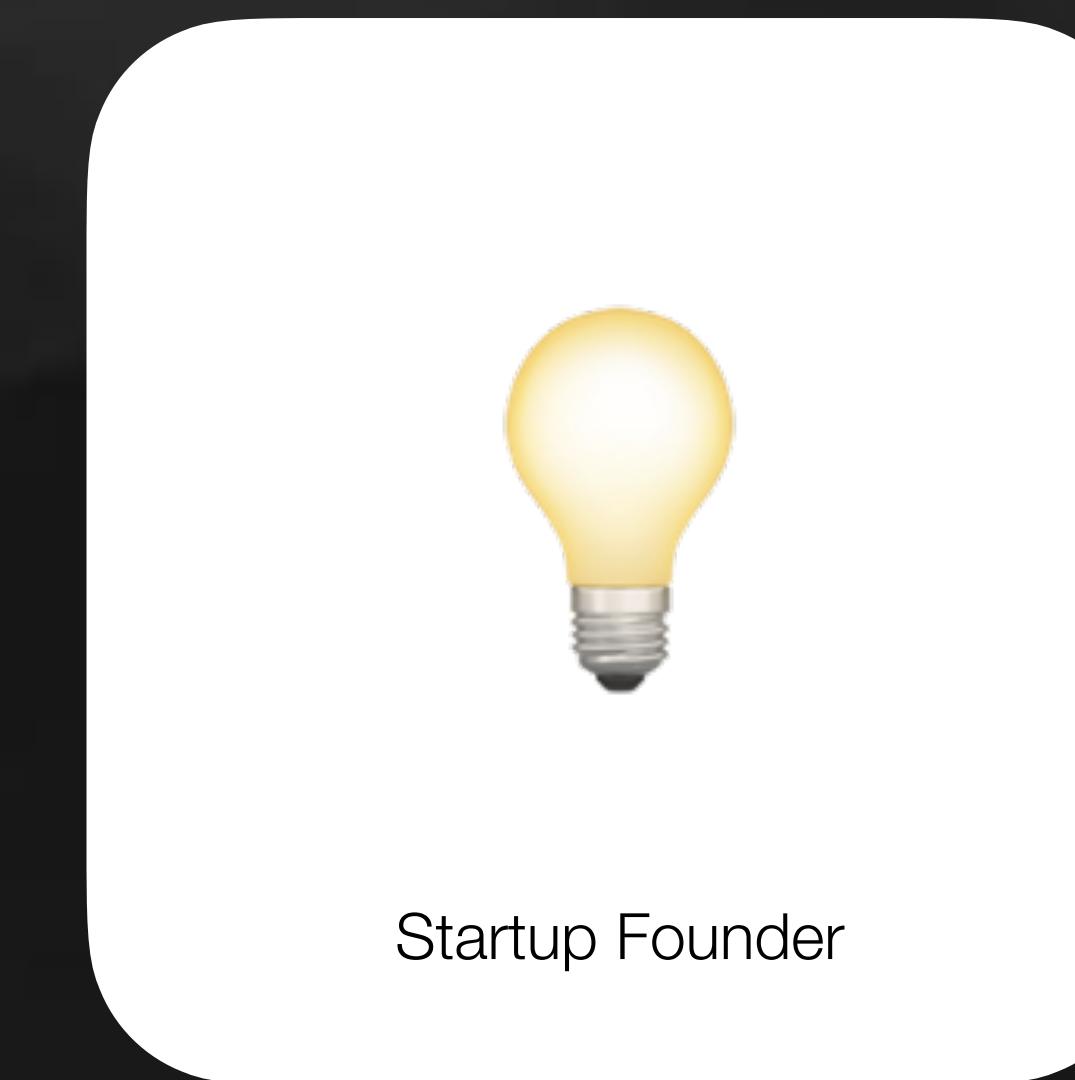
👋 G'day Speaker Introduction



Currently



Ex-Apple



Startup Founder

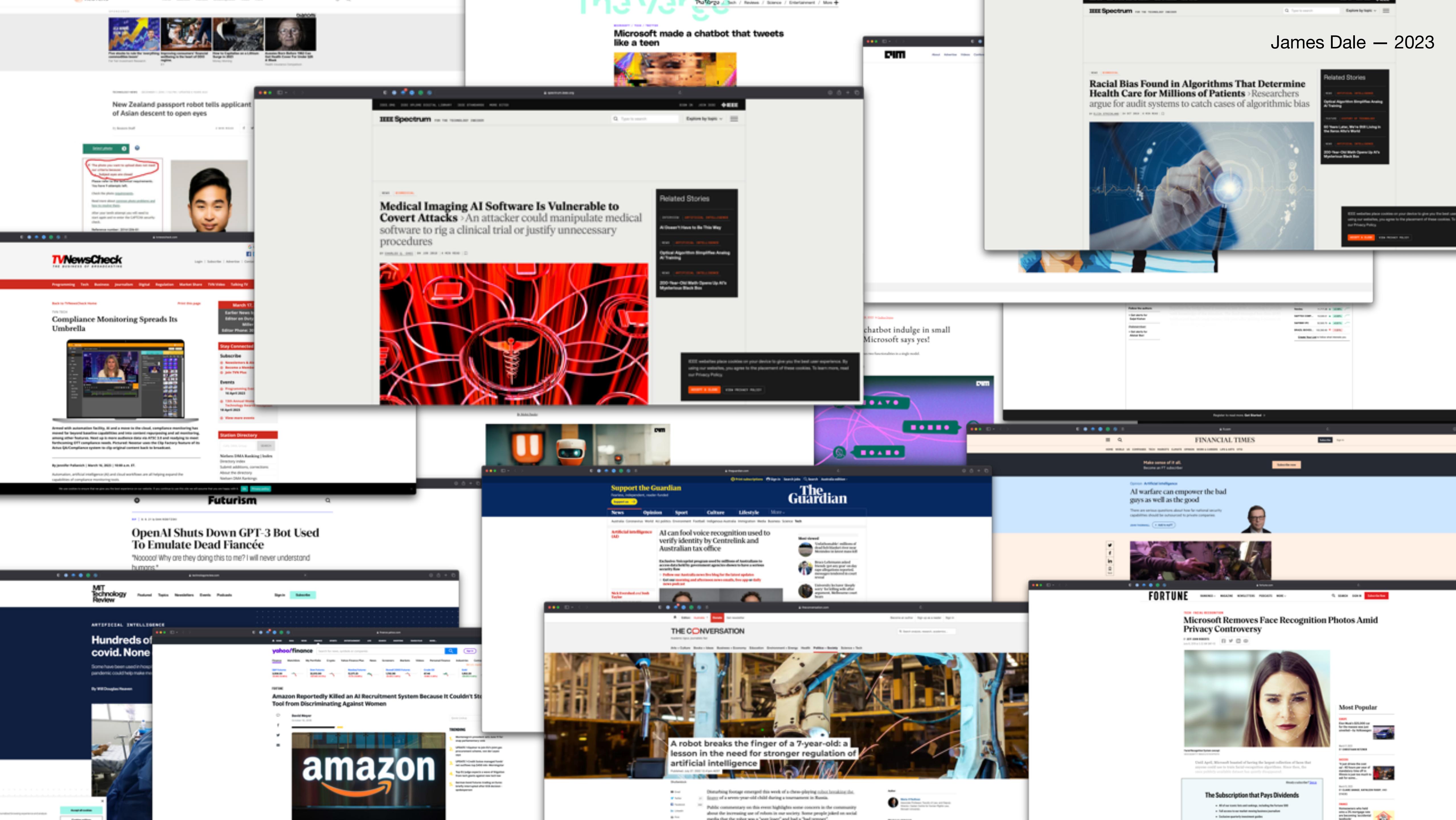


Swift Mentor @ RMIT



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Building Thoughtfully



⭐️ Appeal



Delight

“The true measure of a successful machine learning application is not just accuracy, but also how it enhances the user experience.”



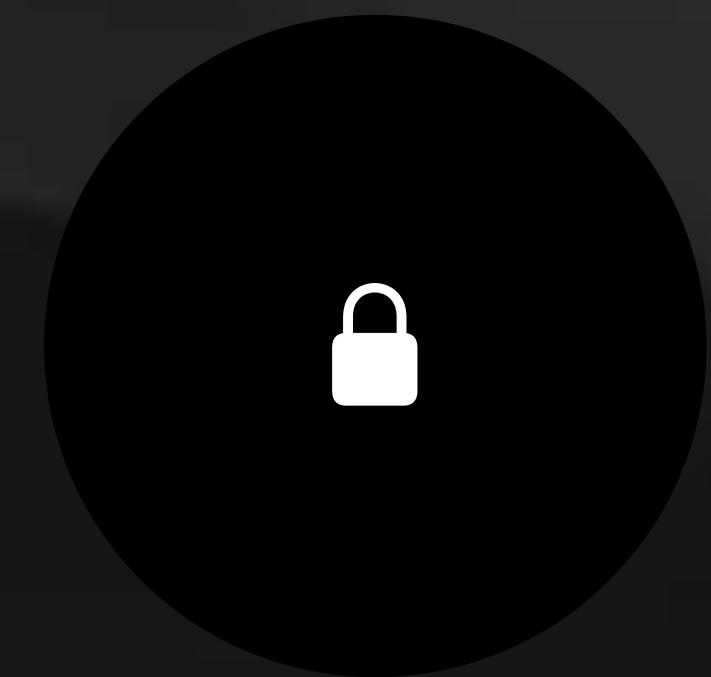
Good Datasets

“To build great machine learning experiences, you need to think like a user, not just a data scientist.”

Privacy



On-Device ML



On-Device ML



Thoughtful UI

Limitations

Set Expectations

Search

Q Photos, People, Places...

Corrections

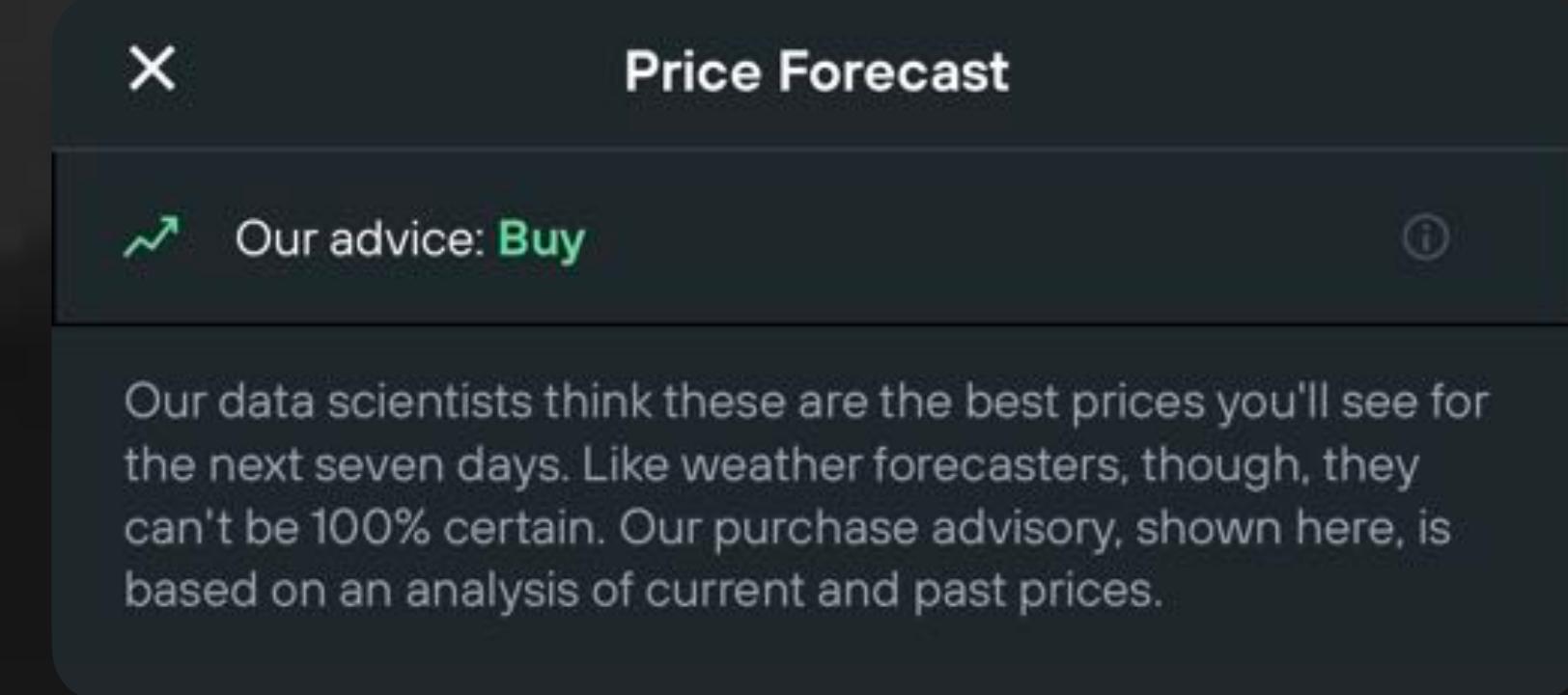
Mistake Fixing



Attributions Be Transparent



Confidence Indicate Certainty



Feedback Iterate & Improve

Suggest Less Like This



Accessibility UX

15%

World Population living with a disability

Alternative Inputs

Provide Options



Provide Feedback

Multimodal

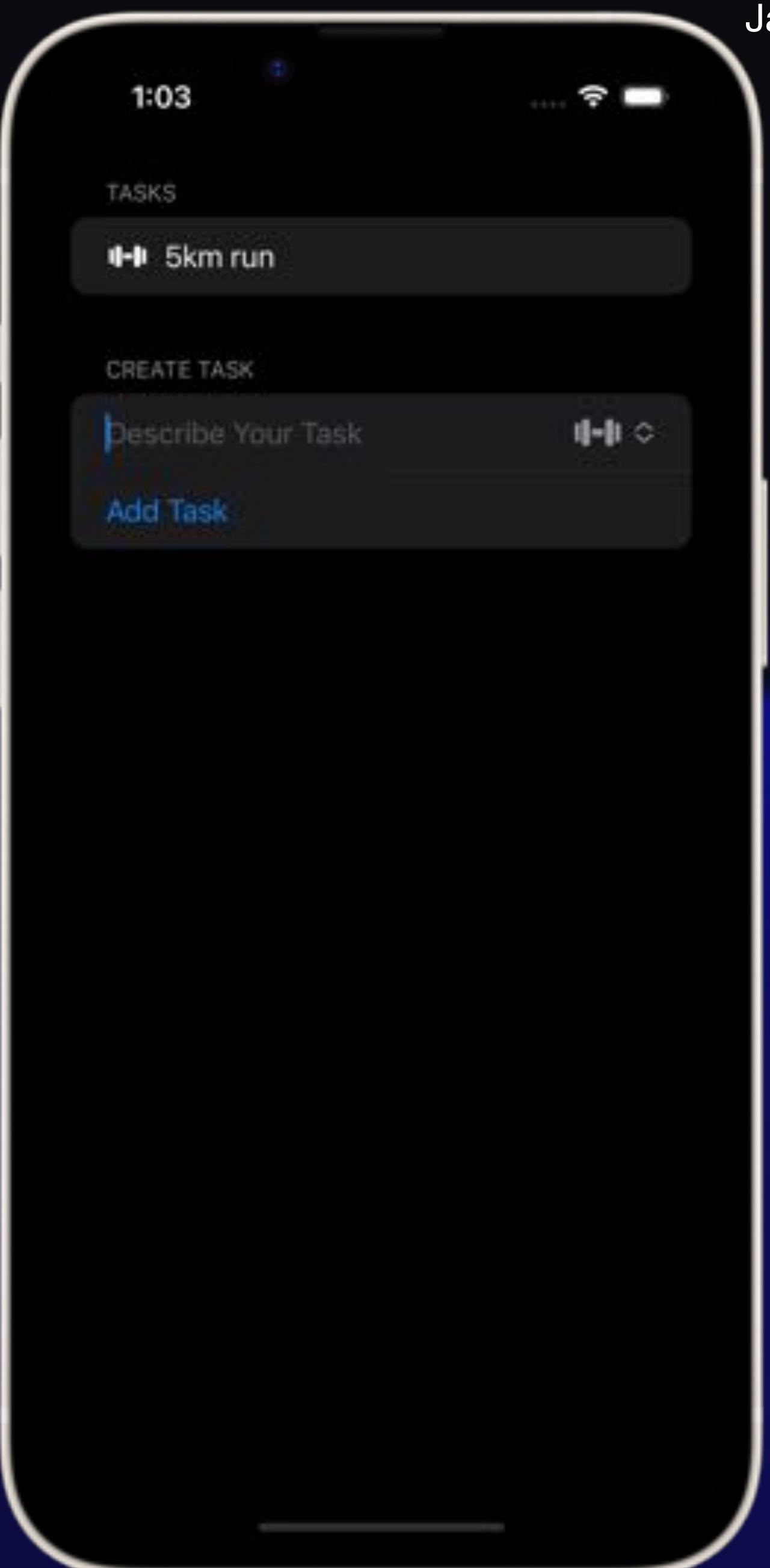


AI

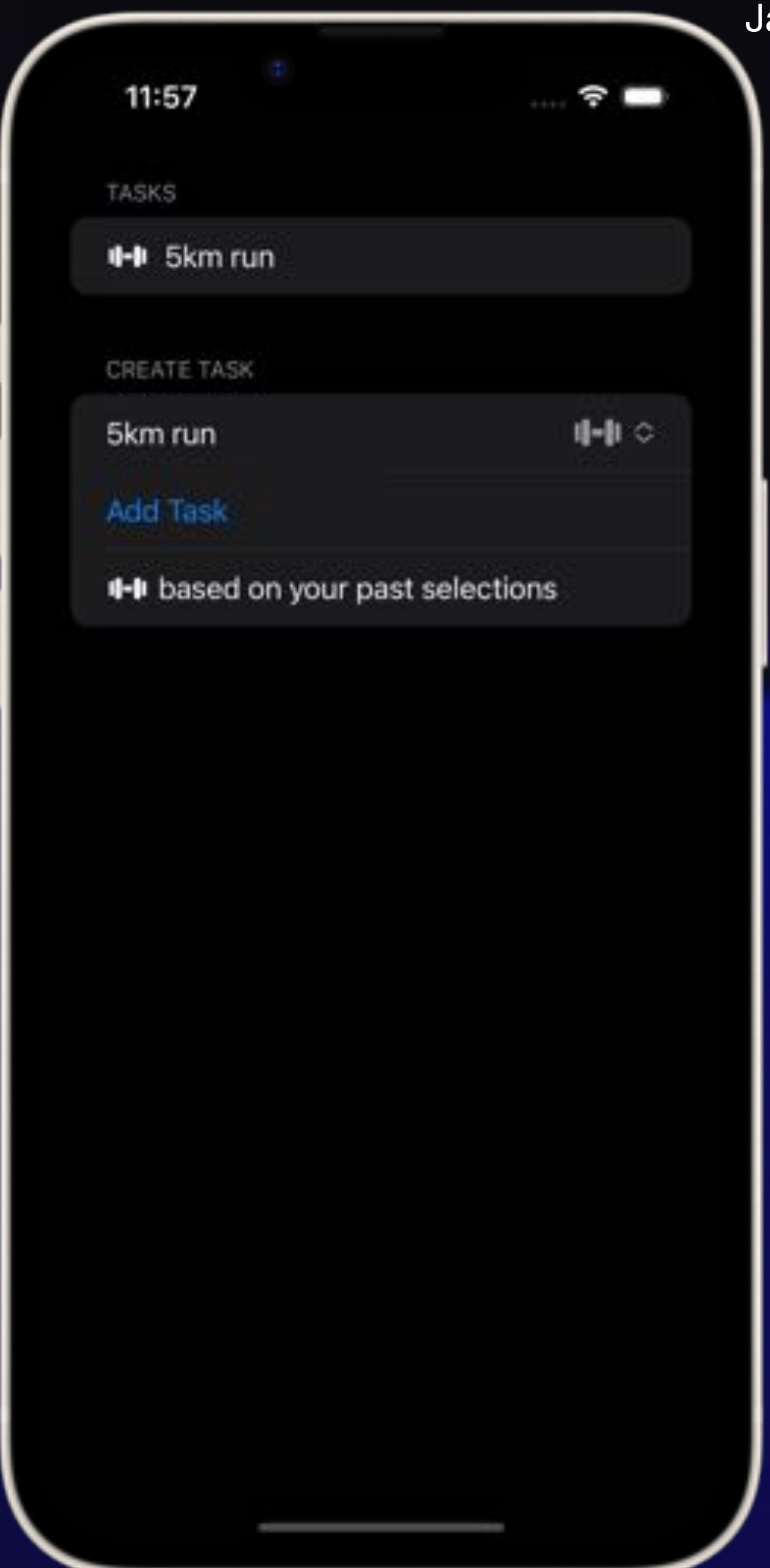


Example

How do we improve?

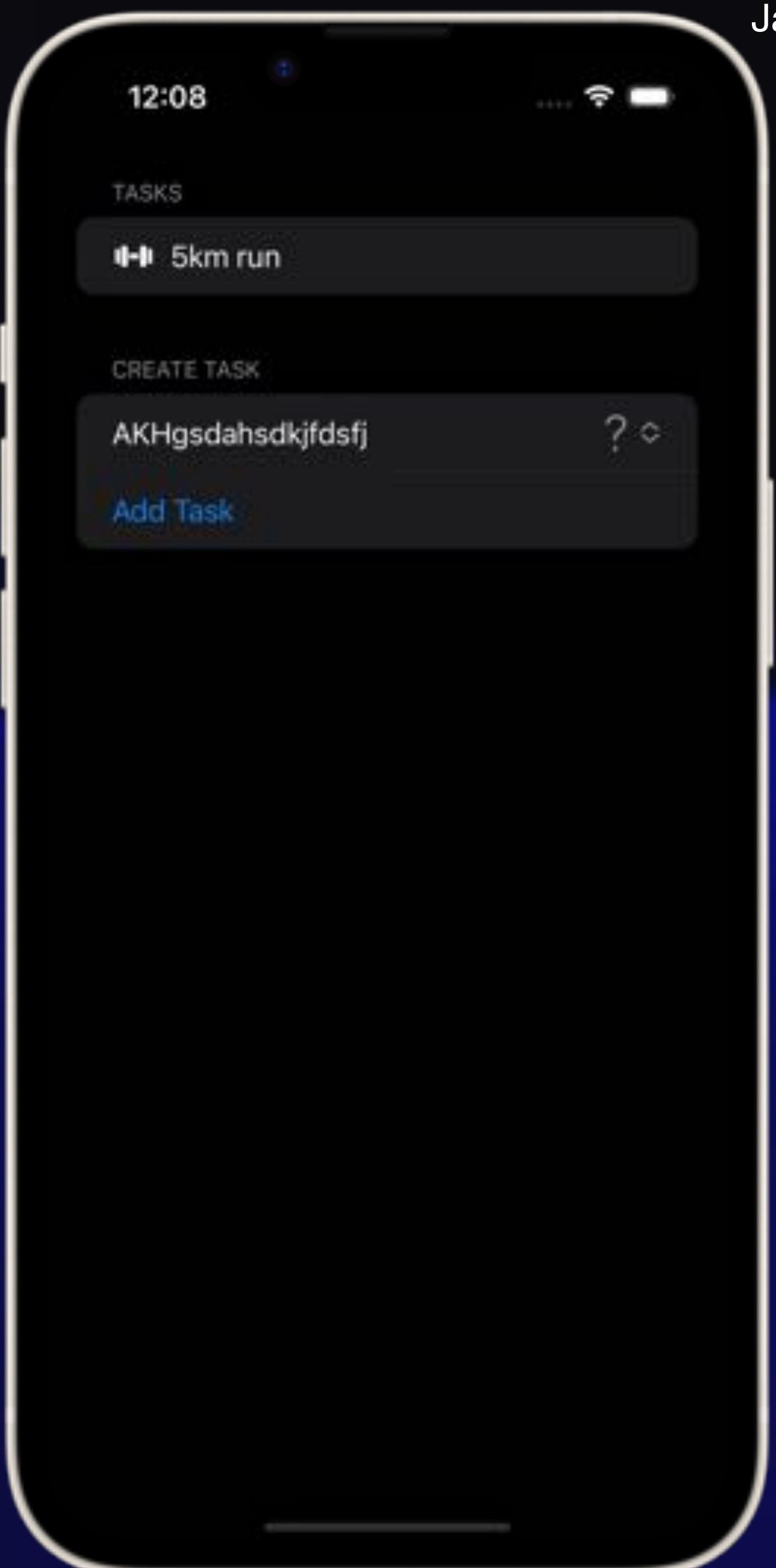


/// Improvements?

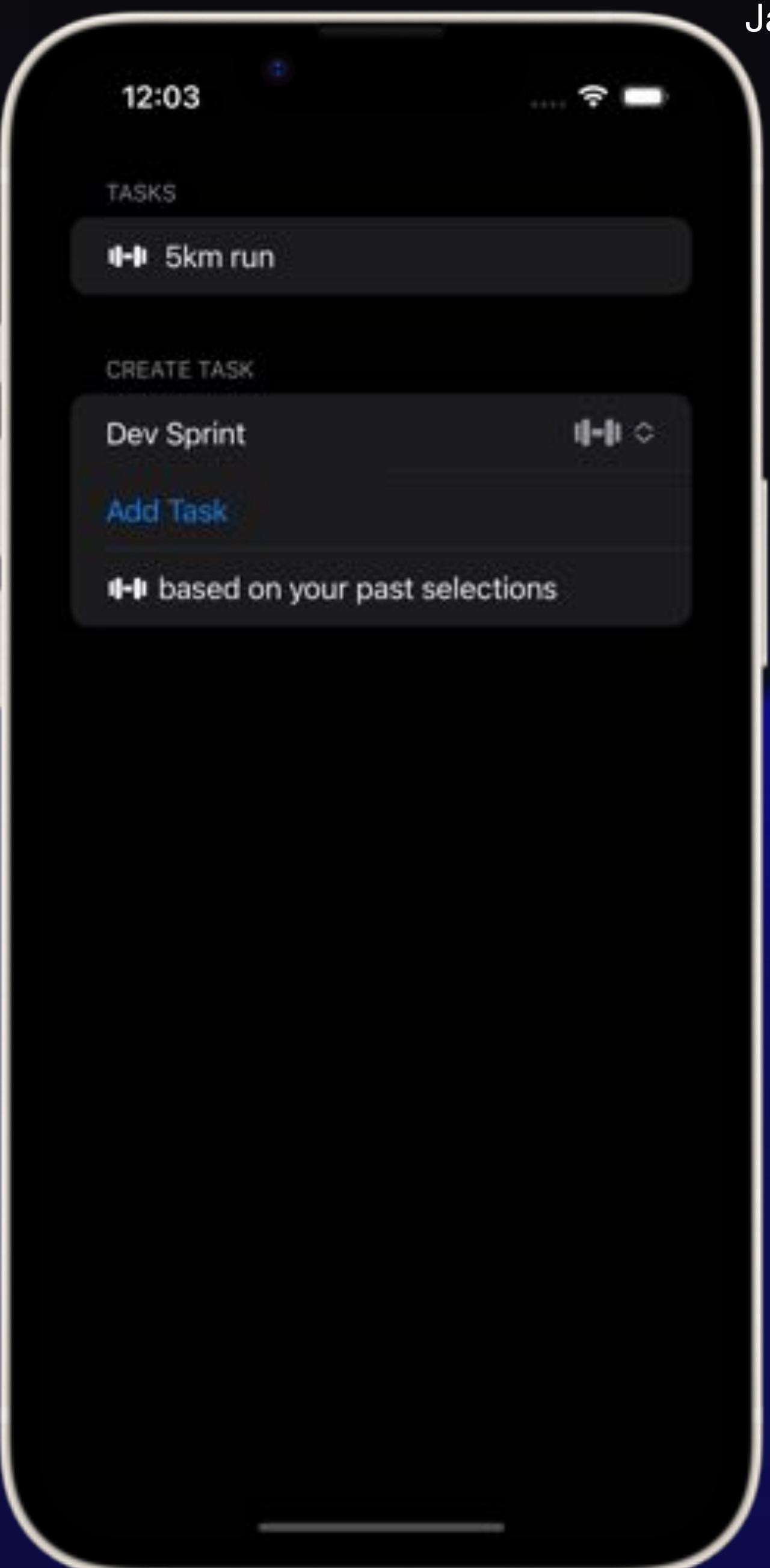


/// Attribution

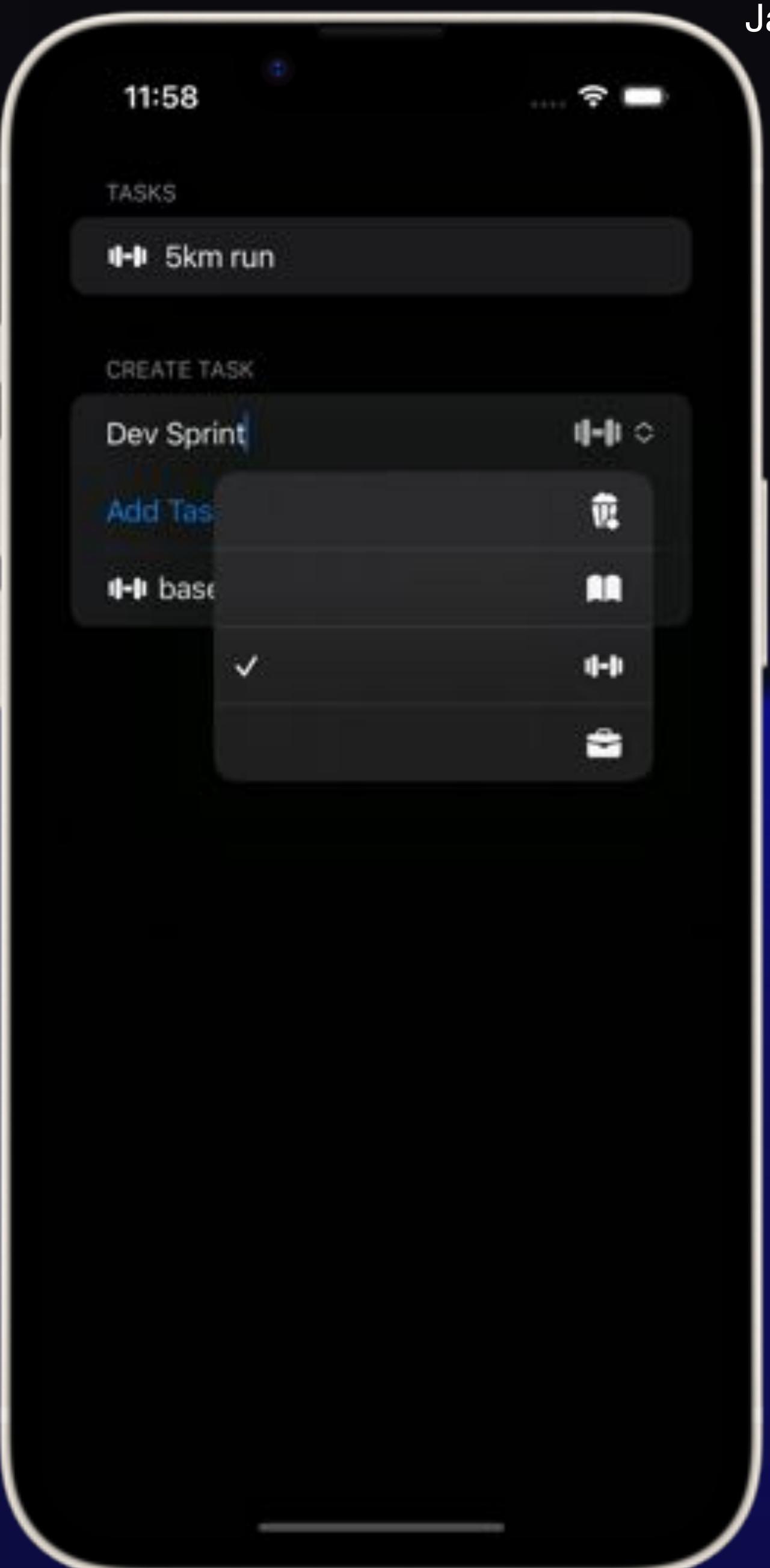
Text("Based on your past selections")



/// Confidence

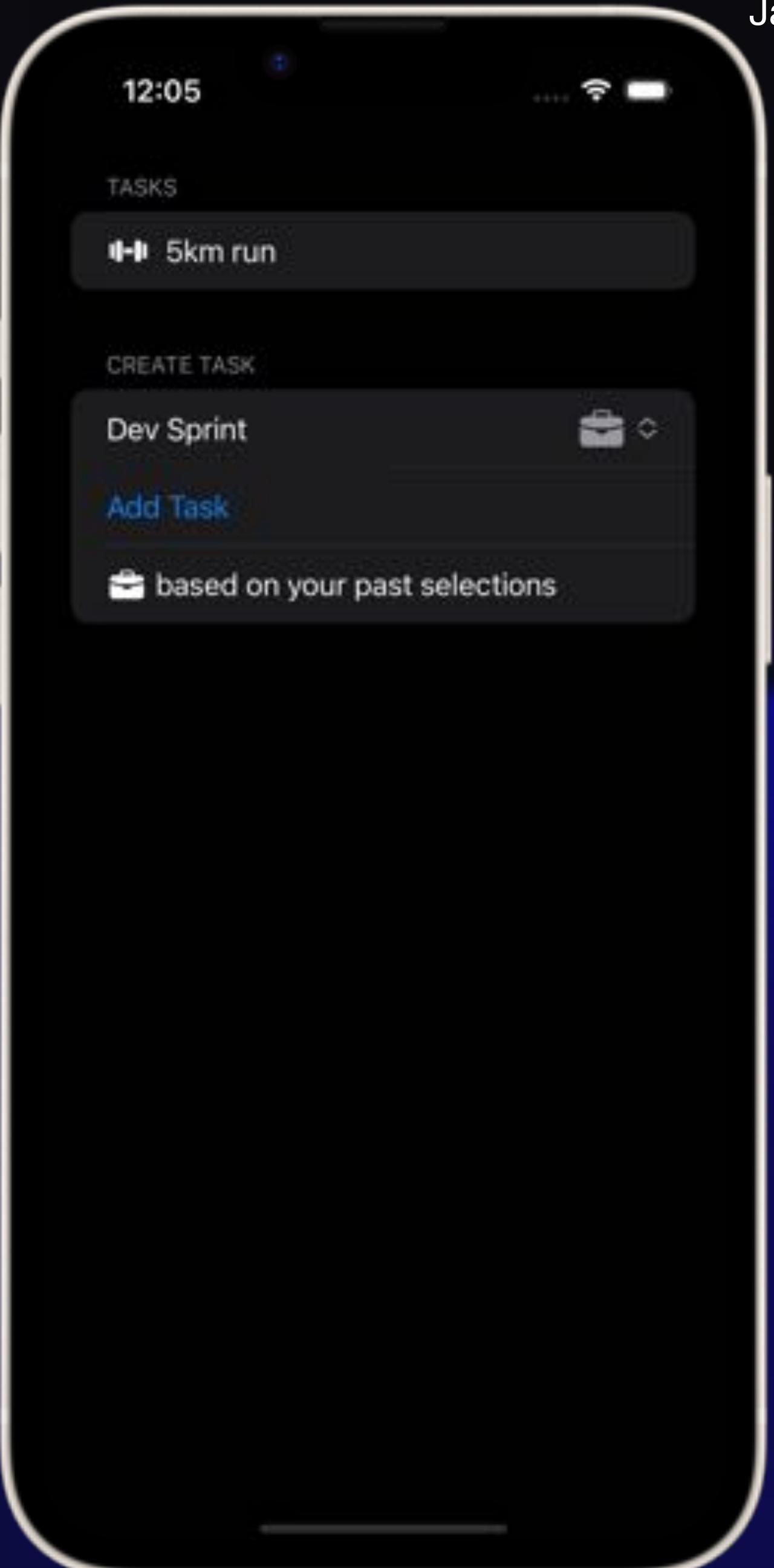


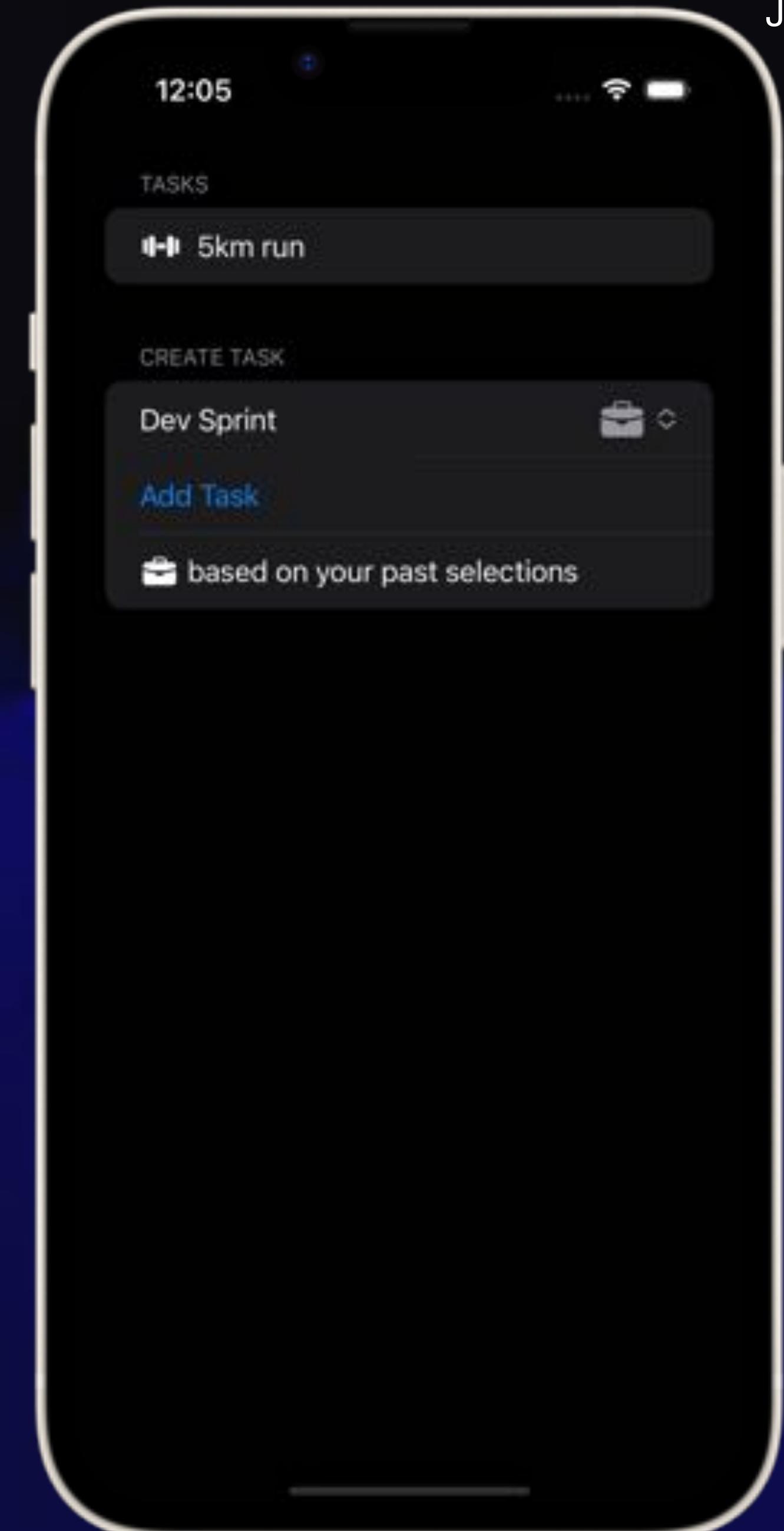
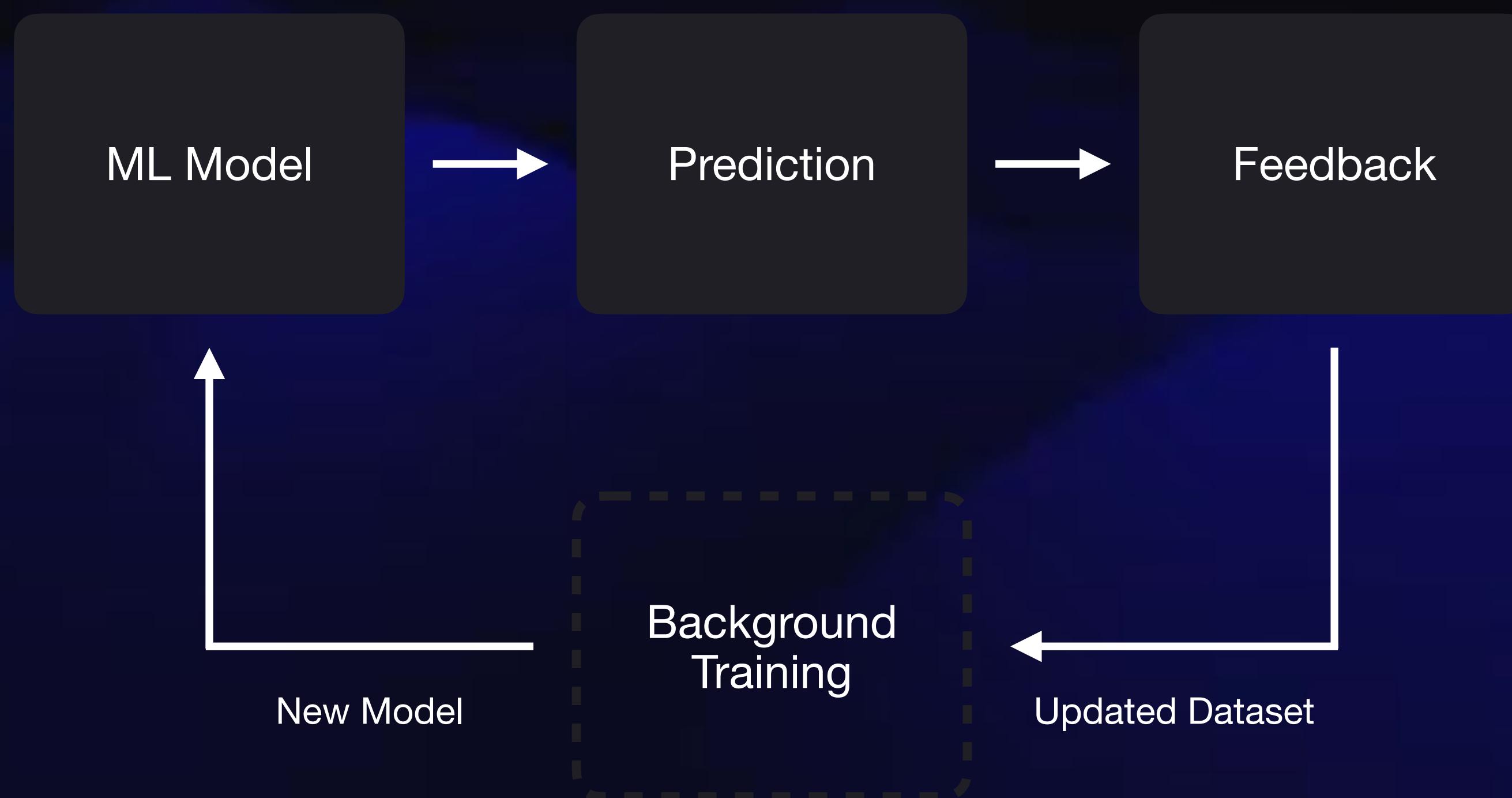
/// What about wrong predictions?



/// Corrections

```
/// Implicit Feedback
let classifier = try MLTextClassifier(trainingData: dataset,
                                         textColumn: "task",
                                         labelColumn: "icon")
```





Recap

Building Thoughtful ML Experiences

User-Centered Machine Learning Applications