Beta Presentation
Recipe Progression Tracking

The Capstone Experience

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Project Overview

• Motion Sensor Data collection of cooking actions
• Mobile and Watch applications
• Collect and store user cooking data
• Utilize Machine Learning (ML) algorithm
• Develop ML Algorithm
• Identify current step of recipe
• Learn optimal cooking method(s)
• Provide user guidance while cooking
Menu Page

- Alfredo
- Spaghetti
- Shrimp Fried Rice
Testing Dataset

Dummy recipe for the collection of the new dataset. None, Chopping, Kneading, Stir (beans, small spoon), Stir (beans, large spoon), Stir, (playdoh, small spoon)

1. None
2. Chop
3. Kneading
4. Stir1
5. Stir2
6. Stir3
Gesture Motion being Recorded
Motion data being Recorded
ML Model Performance Plot
Sample Size Performance Plot

Performance vs Sample Size, 4 Sensor LSTM

Accuracy (Mean of 100 Trials)

% of 117 samples trained on
What’s left to do?

• **Features**
  - Watch face running in the background
  - App to demonstrate real-time ML classification

• **Stretch Goals**
  - Pruning
  - Further model development & evaluation

• **Other Tasks**
  - Preventing multiple timers on page
Questions?