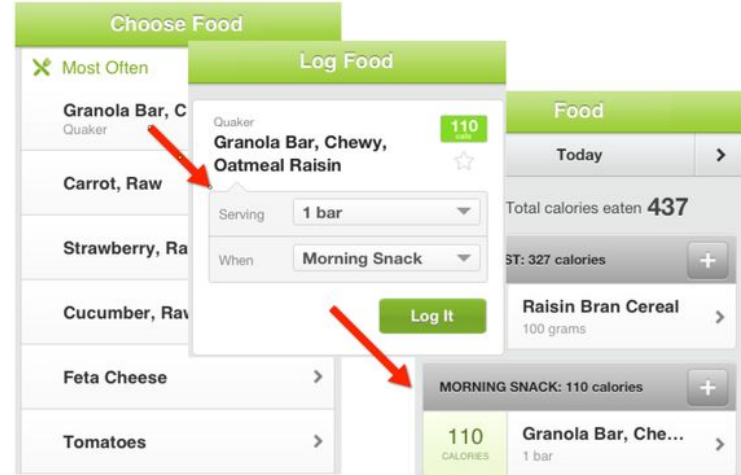
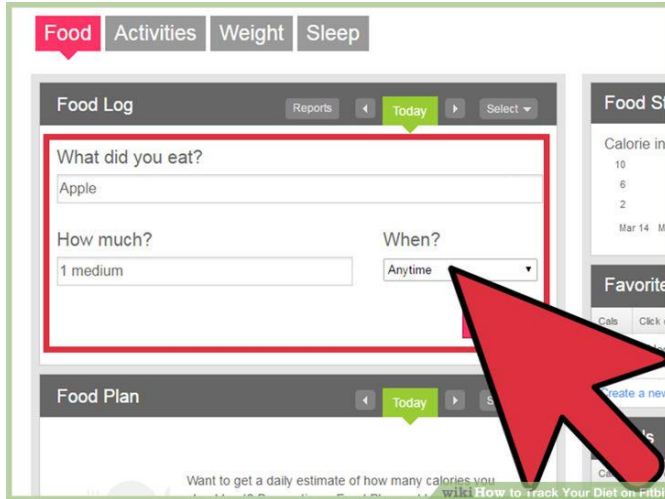




Predicting Food Items from Images

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HAVING A HARD TIME LOGGING YOUR FOOD INTAKE?



WHAT IF YOUR PHONE DOES THAT FOR YOU?



**CAN WE PREDICT WHAT
THE FOOD ITEM IS FROM
AN IMAGE?**

**CAN WE PREDICT THE
SERVING SIZE OF A MEAL
FROM AN IMAGE?**

FRIES



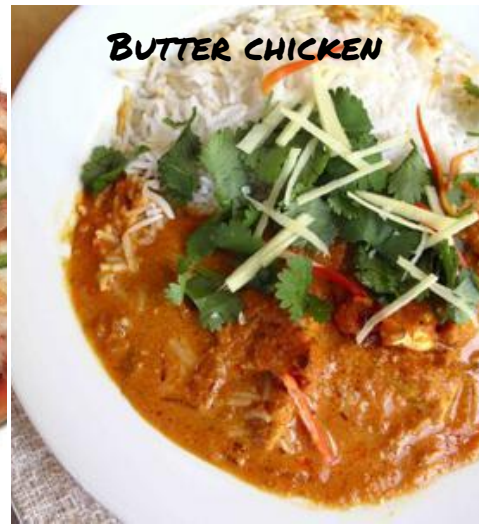
PANCAKE



PIZZA



BUTTER CHICKEN



SPAGHETTI



SUSHI



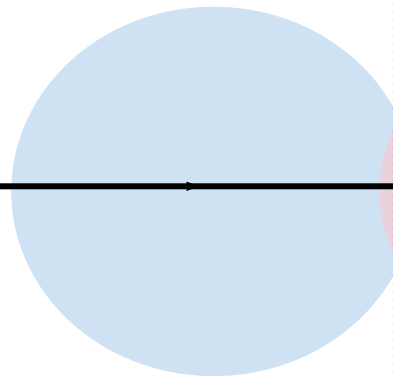
DONUT



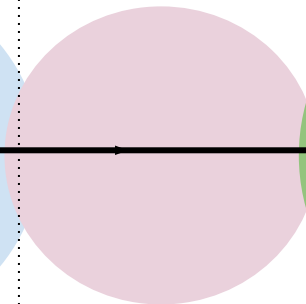
BURGER



PROJECT PIPELINE



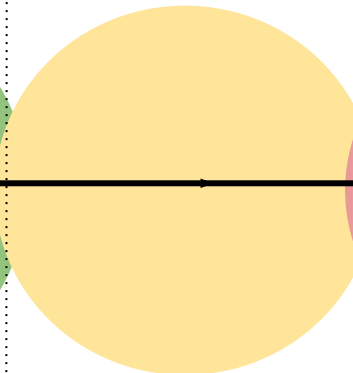
Data Gathering



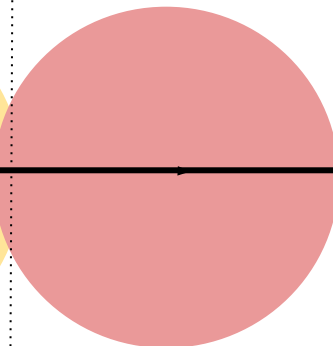
Resizing/
Scaling



Modeling

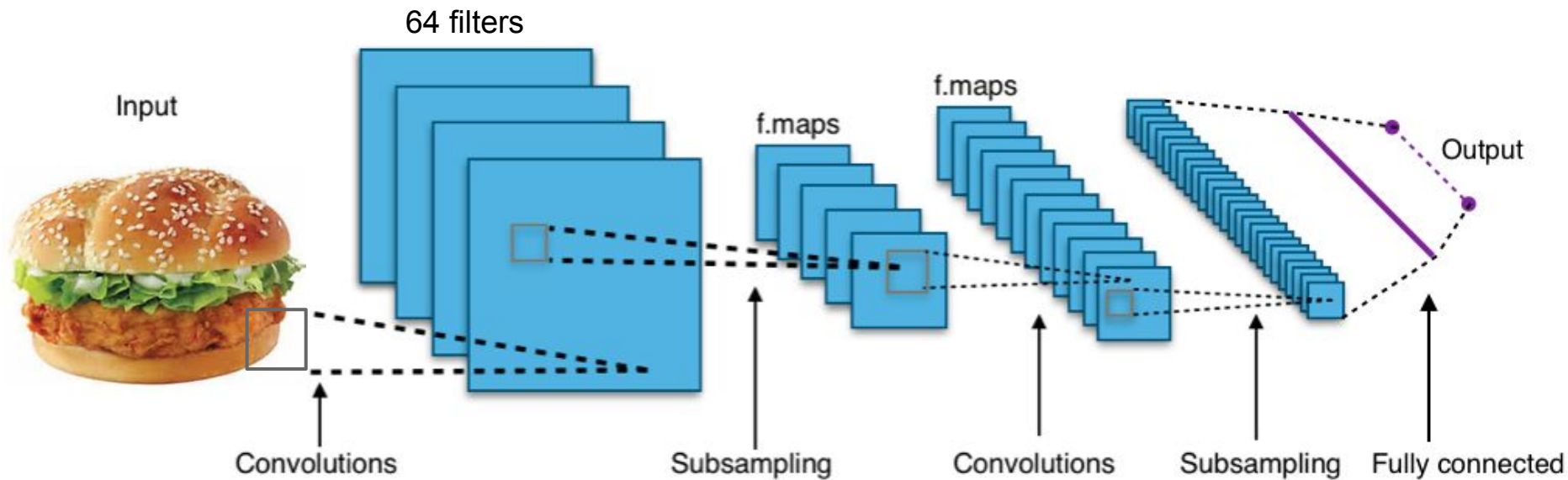


Evaluation



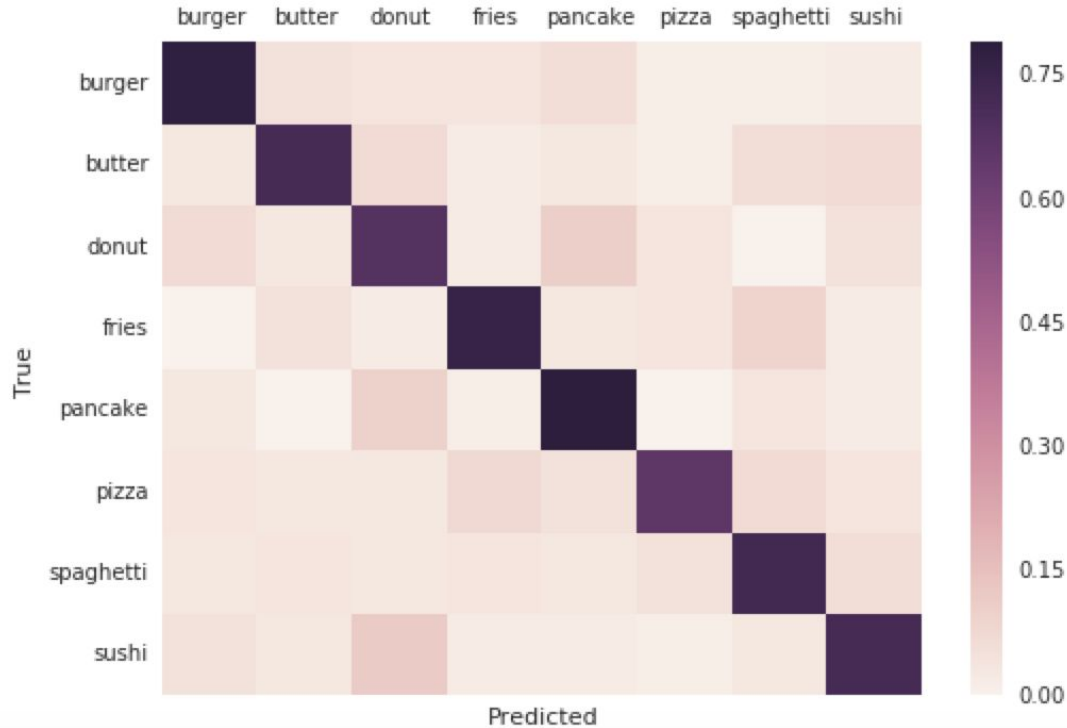
Visualization

CONVOLUTIONAL NEURAL NETWORK



RESULTS

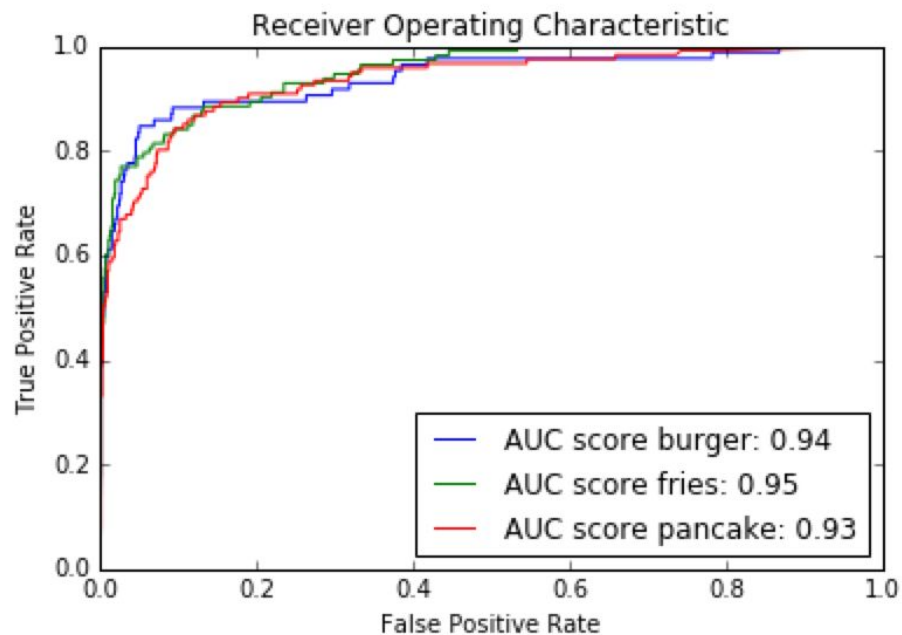
Confusion matrix of the classifier



Validation Accuracy	73.38%
Validation Recall	84.03%

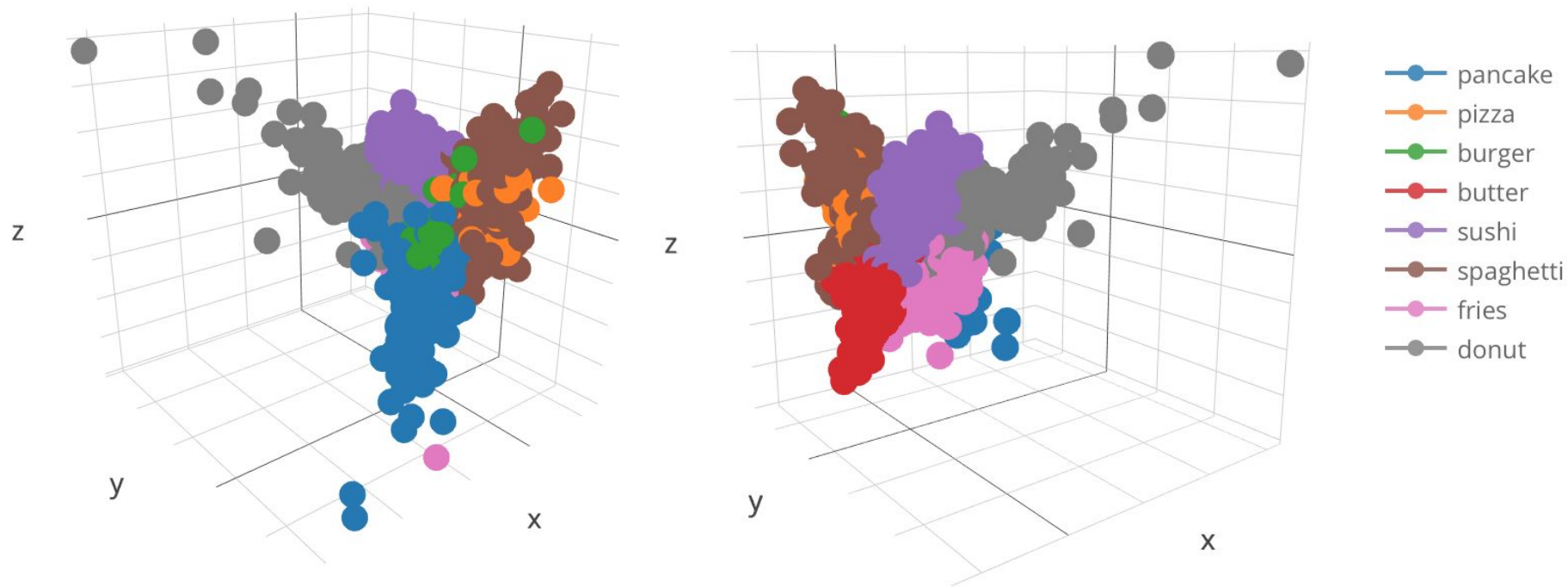
- Top 1 accuracy : 73.38%
- Top 2 accuracy : 84.13%
- Top 3 accuracy : 91.27%

MORE RESULTS



One vs All

3-component PCA of extracted deep features



HITS

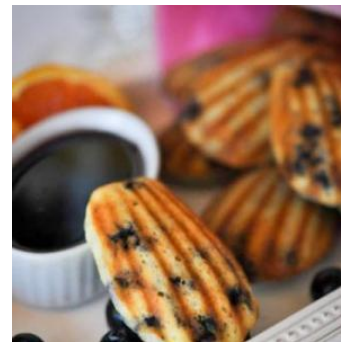


MISSES

Fries or Spaghetti?

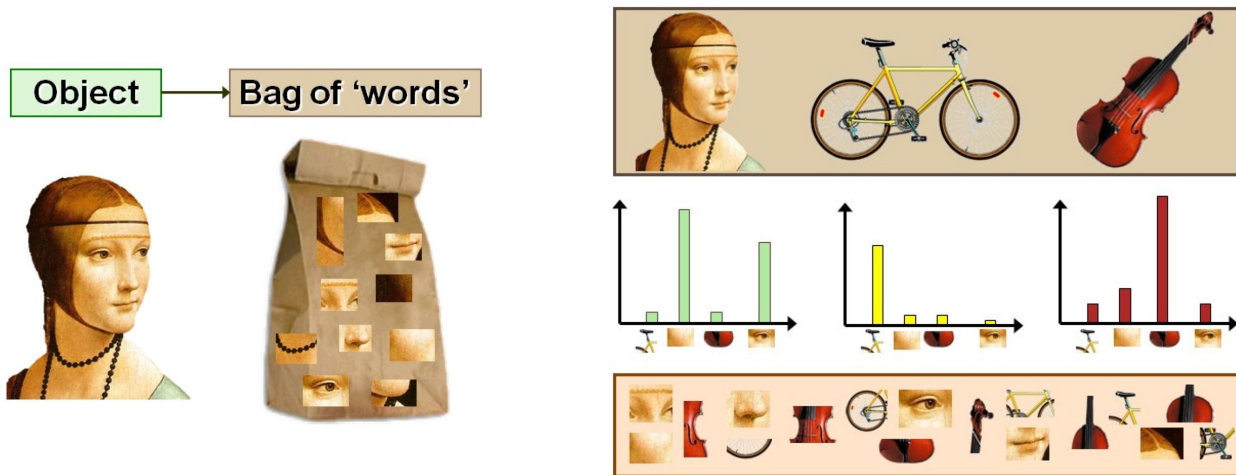


Pancake or Donut?



FUTURE WORK

- Implemented a bag-of-features model with 61.2% accuracy. Tune further and ensemble with CNN to improve prediction.



- Expand to more classes.

Question?

Thank you

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<https://www.linkedin.com/in/swathisivadas>



<https://github.com/swathis07/Food-Nutrition-Predictor>

