

“MT-Diet: Automated Diet Assessment using Myo and Thermal”

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Healthy Diet App: MT-Diet

Background:

- Obesity is known to be a cause for many health conditions (diseases)
- Diet monitoring to prevent and treat obesity efficiently and effectively

Previously:

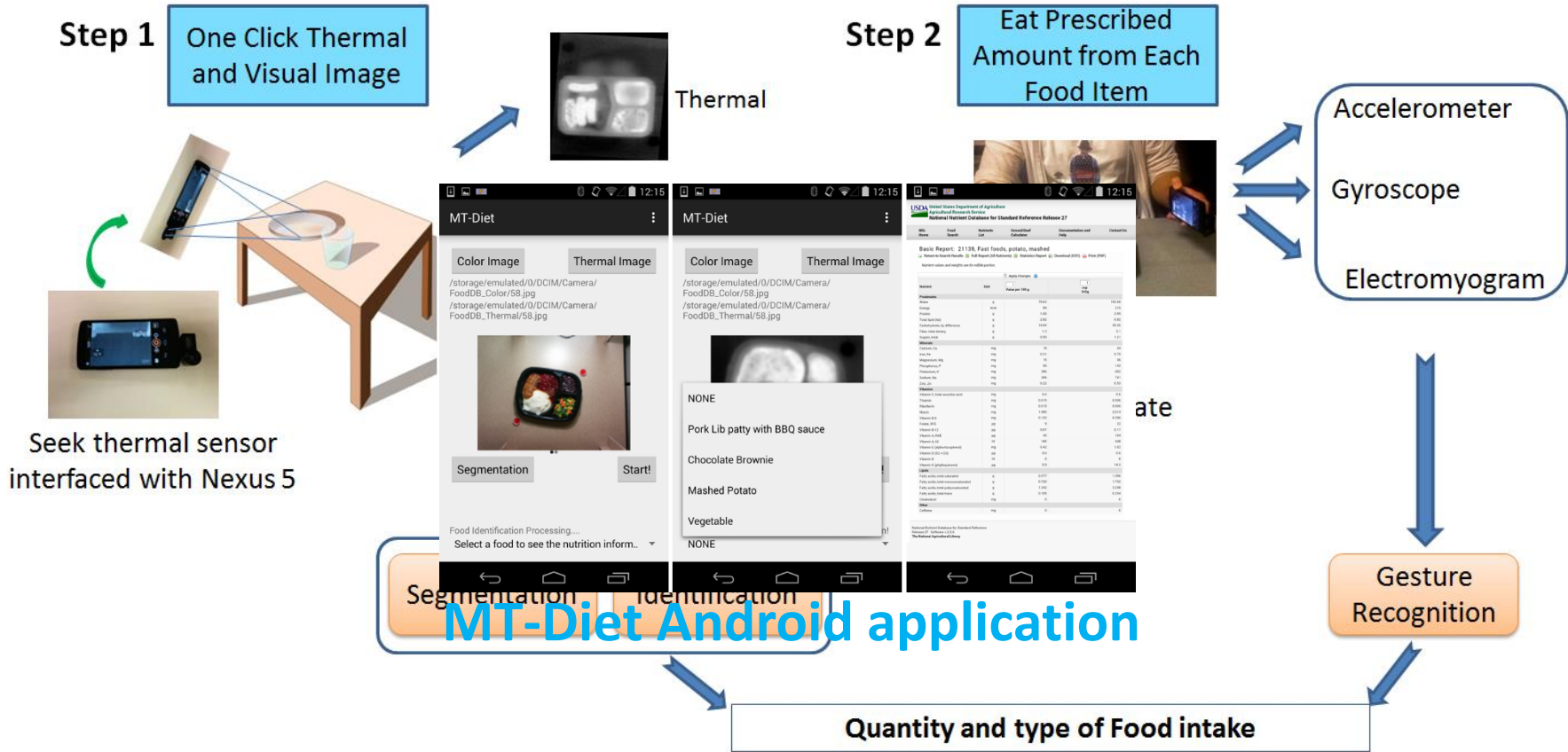
- Self Reporting
 - Recall Error, under-Reporting, Low adherence
- Camera based approaches
 - Good identification accuracy for whole food such as fruits
 - Very poor accuracy for cooked food (63%)
 - Requires manual intervention from user

MT-Diet:

- Automatic diet assessment by one button click
- Improved cooked food identification accuracy (88.93%)



MT-Diet Architecture



MT-Diet Evaluation

Food Segmentation: 97.5%

- Effectively isolating just segments of food from the image
- 78 out of 80 cooked food portions extracted perfectly

Food Identification: 88.93%

- Identifying food types using segmented food
- Support Vector Machine with Kernel, KPCA, Feature fusion, K-fold cross validation

Food Consumption: 91.37%

- Automatic diet assessment at the end of meal
- Real time feedback on eating habits

Thank You

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