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Italiadomani PIANO NAZIONALE DI RIPRESA E RESILIENZA
VITALITY

Telemedicine network and patient classification

affiliated with the UdA's Spoke#4 | WP3 | Task 1-3

Emanuele Lattanzi

UniUrb team members:

Vincenzo Biancalana, Riccardo Izzo, Emanuele Lattanzi, Francesco Lucertini, Fabrizio Perroni, Davide Sisti

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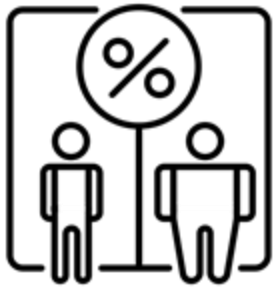
UNICAM Università di Camerino 1336
1506 UNIVERSITÀ DEGLI STUDI DI URBINO CARLO BO
Ud'A Università degli Studi "G. d'Annunzio"

One-Health: telemedicine and environment

WP3 – Telemedicine and Environment Health

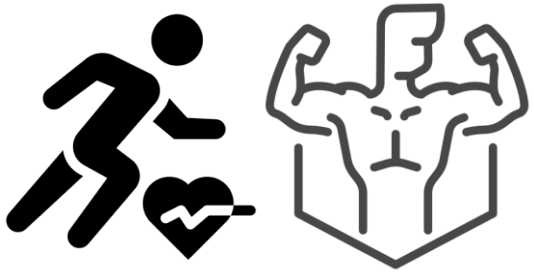
- Task 3.2: Telemedicine network and patient classification

Body Composition



Fitness level

CRF - MF



HRV (ANSI index)

CGM (in the blood)

PA Level

Food Diary

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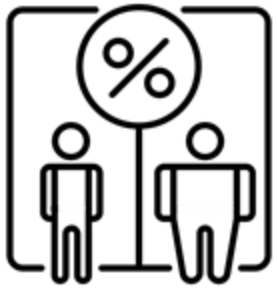

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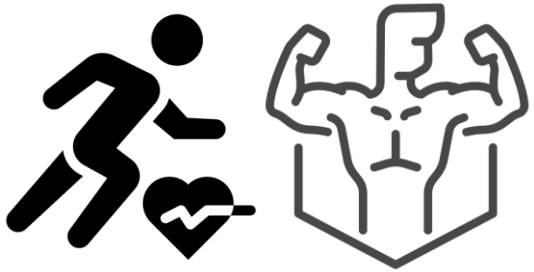

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PA Level

Gold Standard measuring device

RESEARCH ARTICLE

Validation of a food frequency questionnaire for use in Italian adults living in Sicily

Silvio Buscemi[1], Giuseppe Rosafio[1], Sonya Vasto[2], Fatima Maria Massenti[3], Giuseppe Grosso[4], Fabio Galvano[4], Nadia Rini[1], Anna Maria Barile[1], Vincenza Maniaci[1], Loretta Cosentino[1], and Salvatore Verga[1]

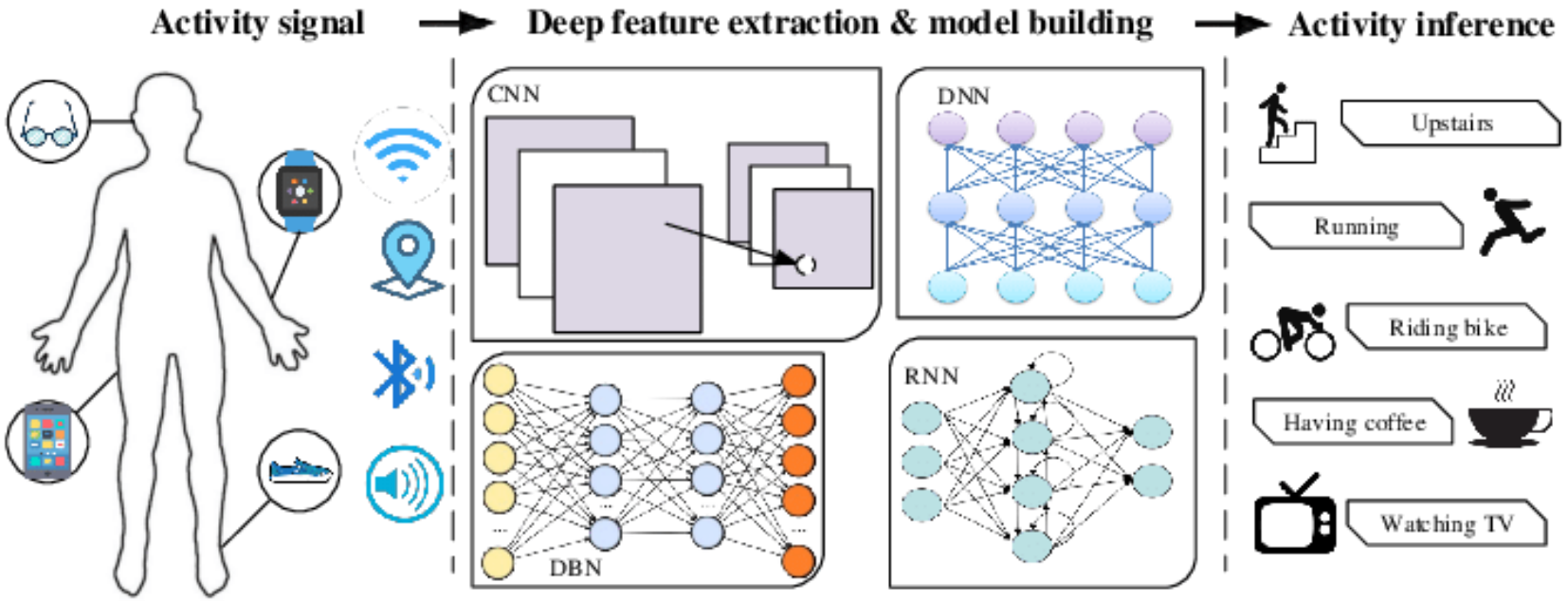
[1]Dipartimento Biomedico di Medicina Interna e Specialistica (DIBIMIS) – Laboratorio di Nutrizione Clinica, [2]Dipartimento di Scienze e Tecnologie Biologiche, Chimiche e Farmaceutiche (DIBIMEF) and [3]Dipartimento di Scienze per la Promozione della Salute e Materno Infantile, University of Palermo, Palermo, Italy, and [4]Dipartimento di Scienze del Farmaco, University of Catania, Catania, Italy

Smartphone

Referenced food frequency questionnaire

Food Diary

PA - Level: Sensor-based Human Activity Recognition



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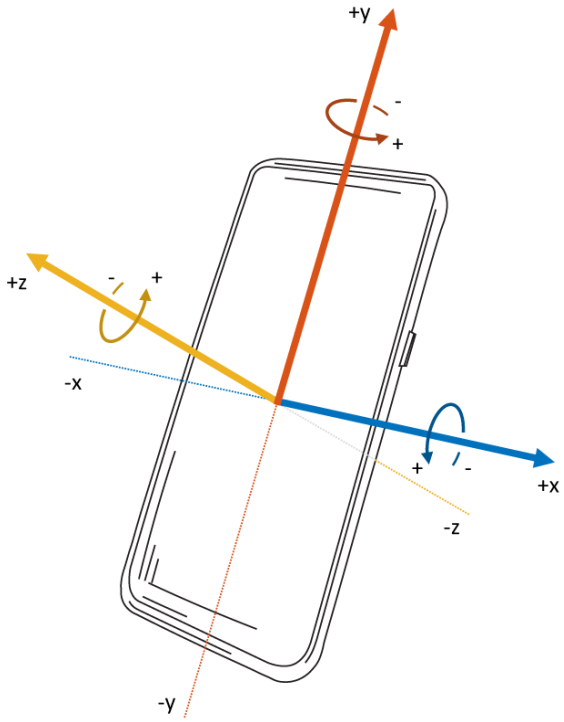
Smartphone sensors + Transformer App



Are Transformers a Useful Tool for Tiny devices in Human Activity Recognition?

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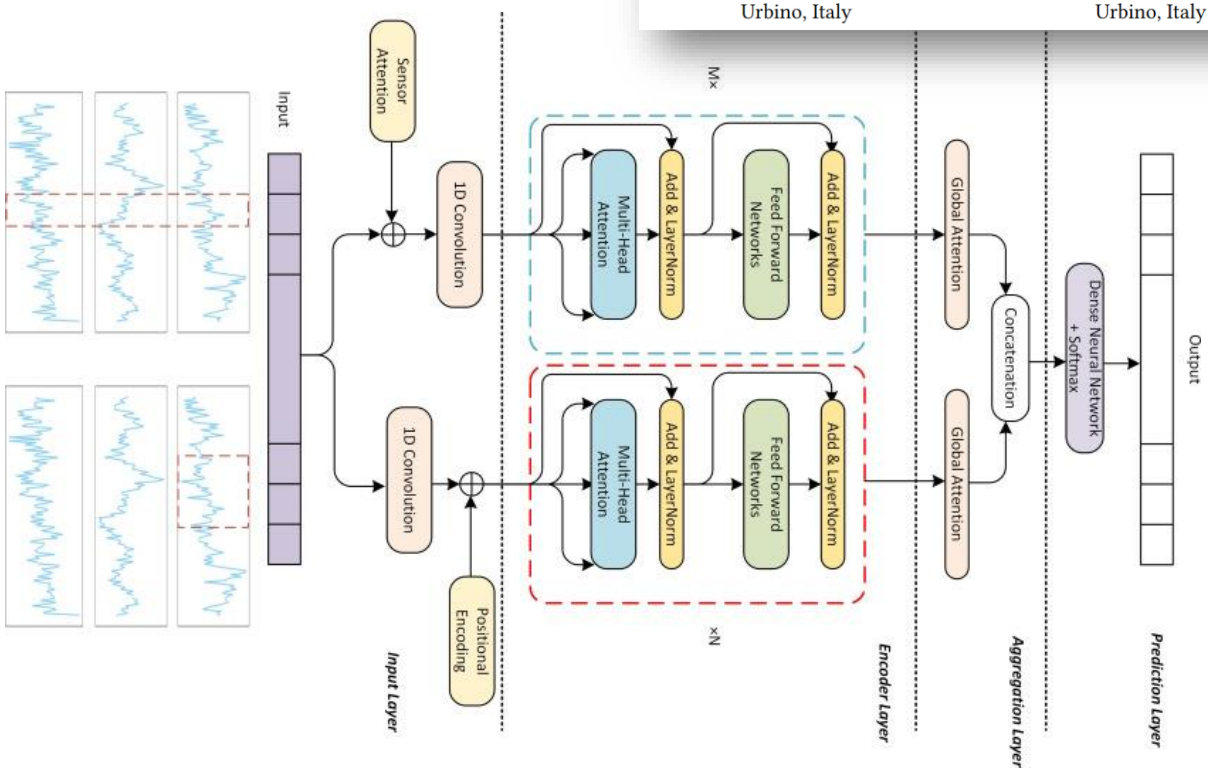

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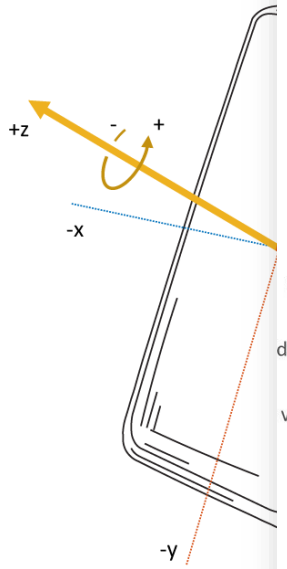

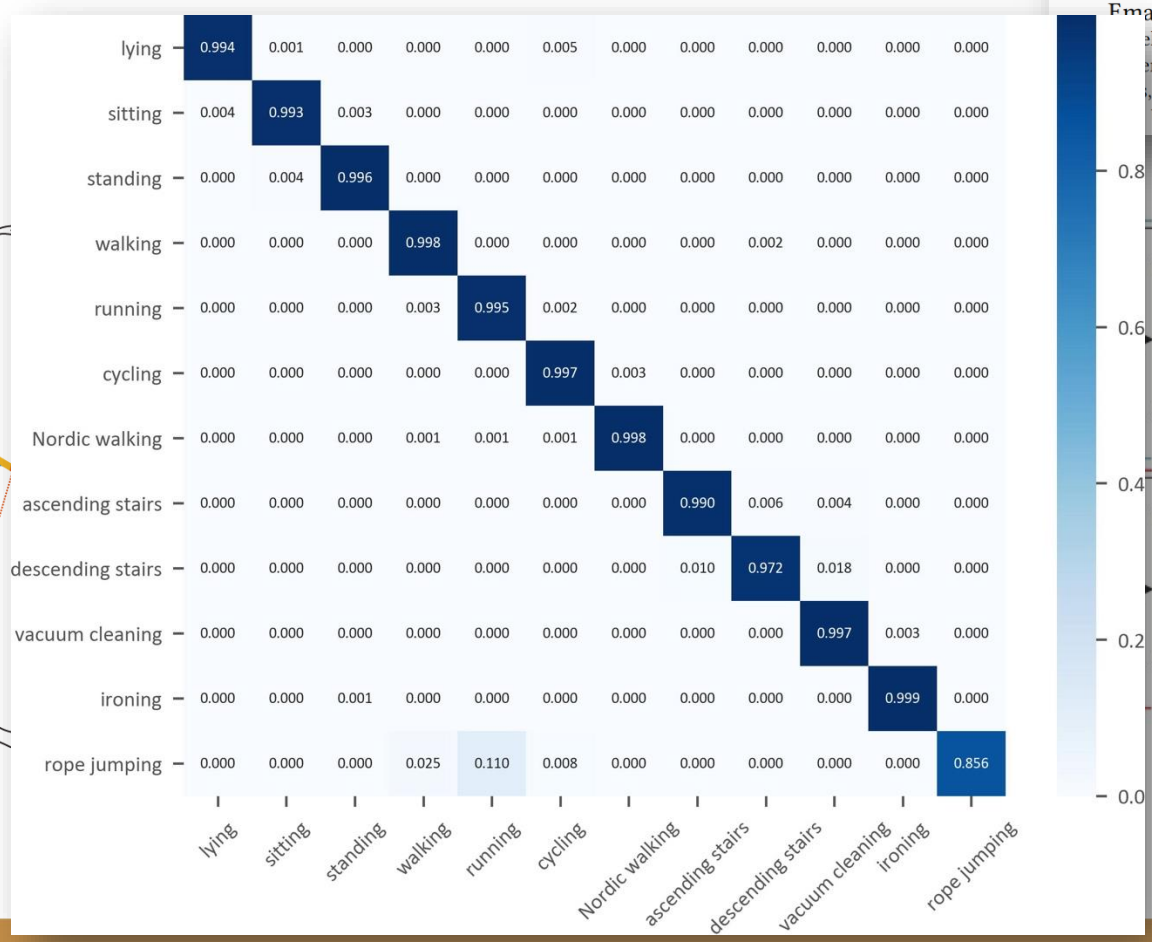

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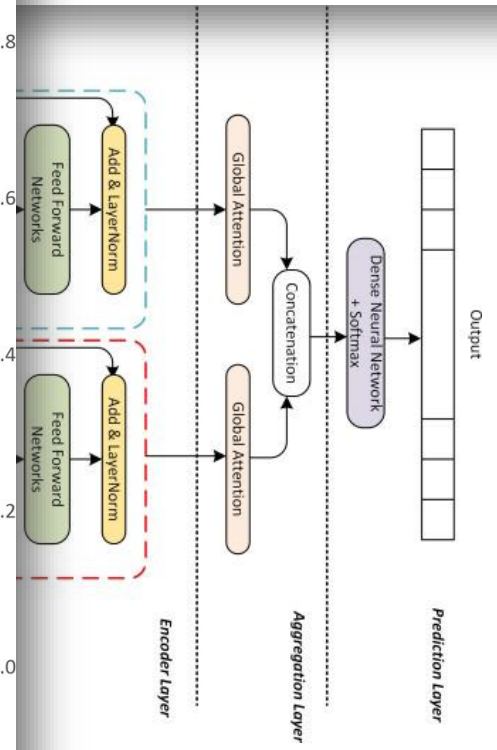

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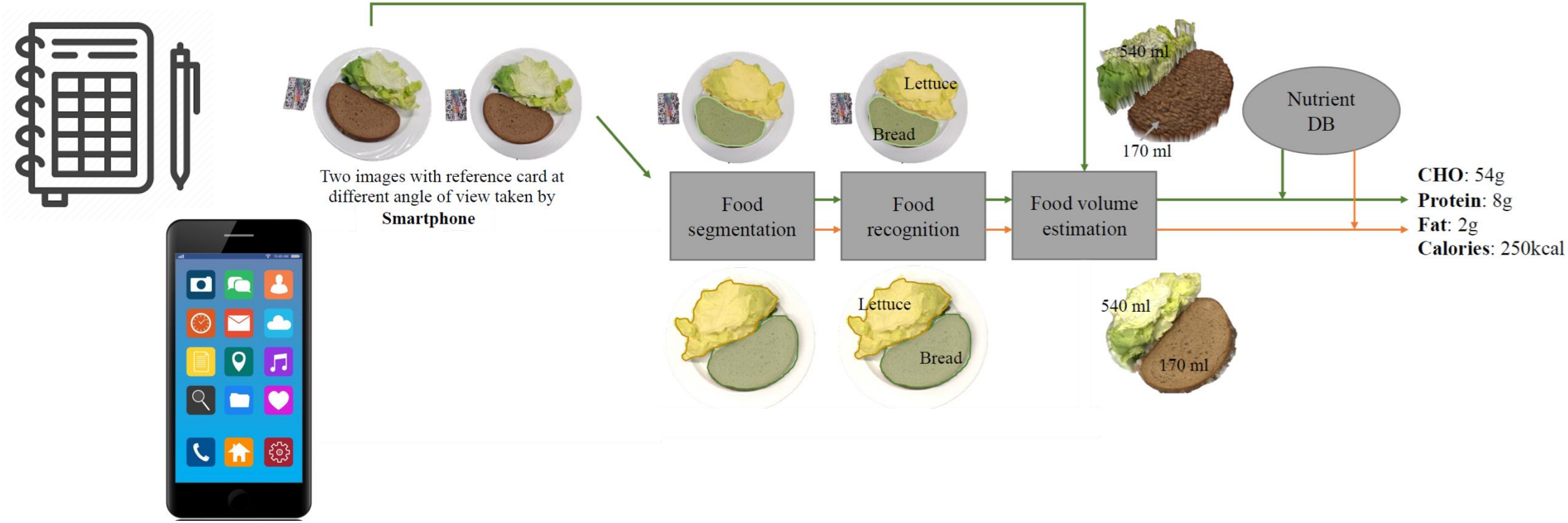
Food Diary: Artificial Intelligence System for Dietary Assessment

Food Diary



Food Diary: Food Recognition

Food Diary

RESEARCH ARTICLE

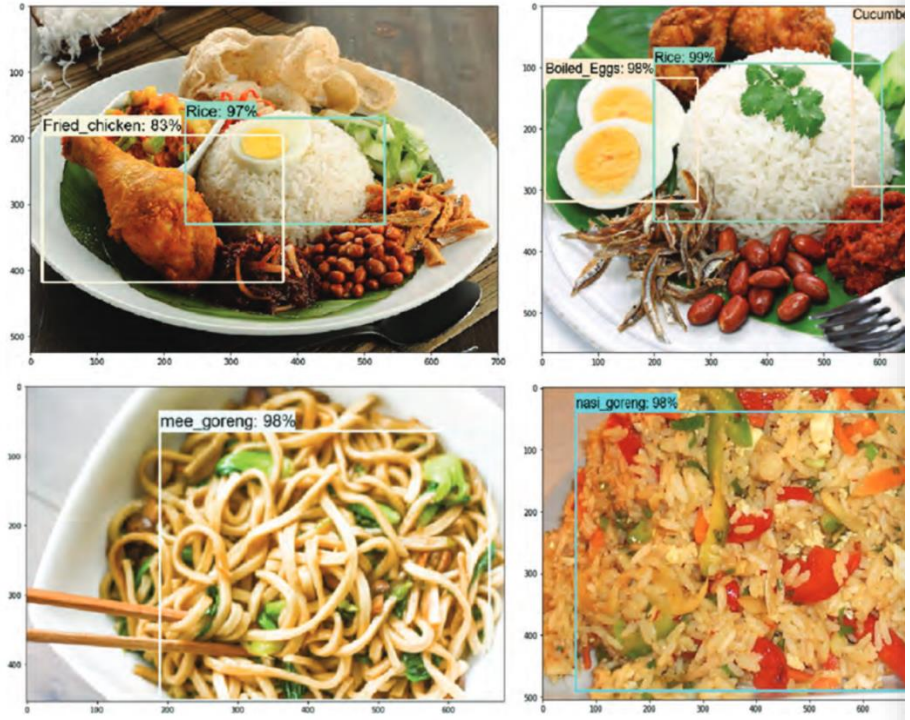
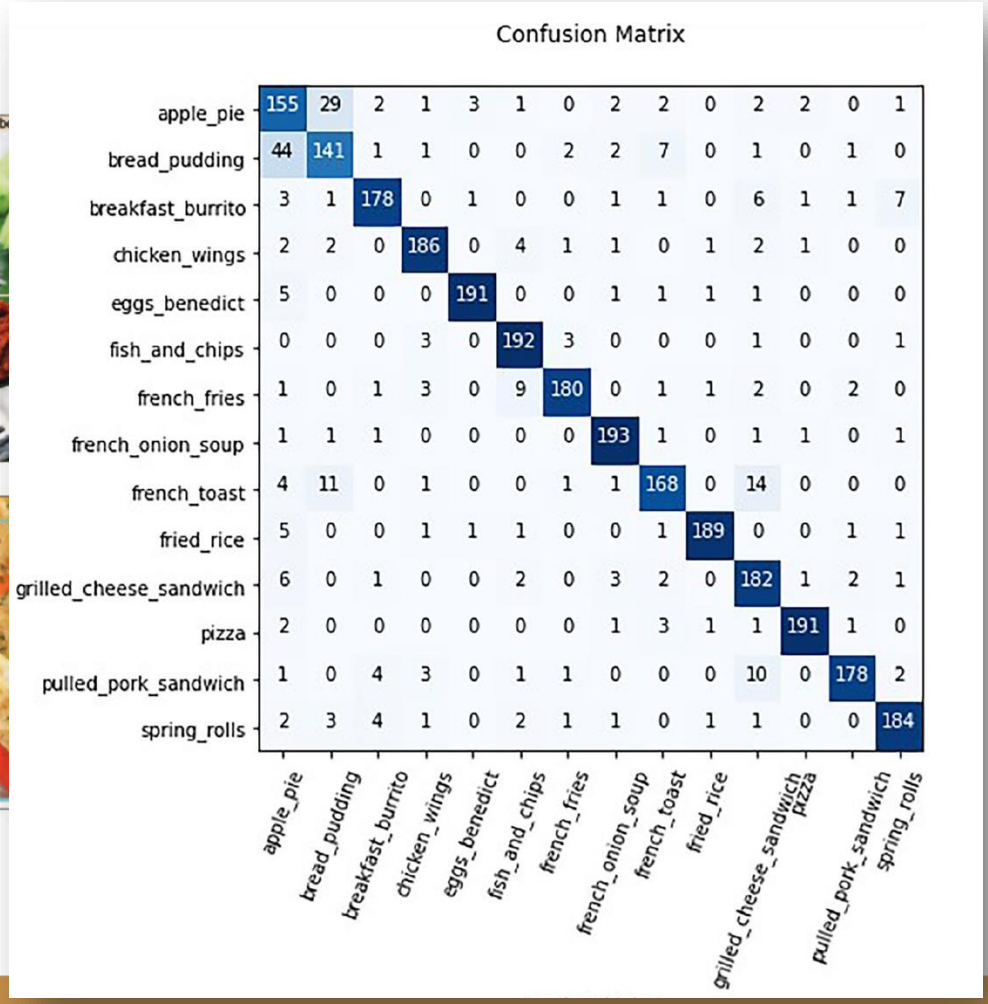


Fig. 5. Testing results of food detection and recognition.

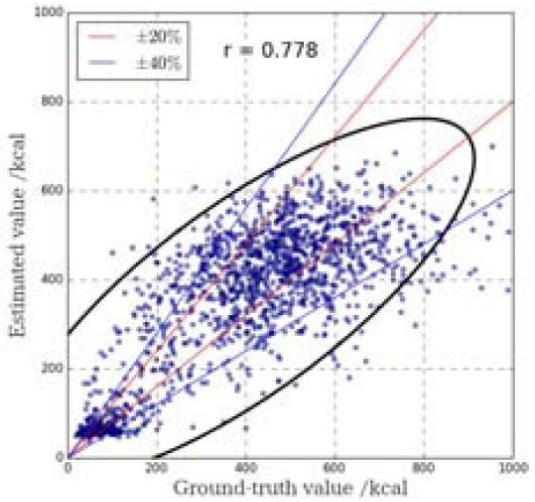


Food Diary: Calorie Estimation

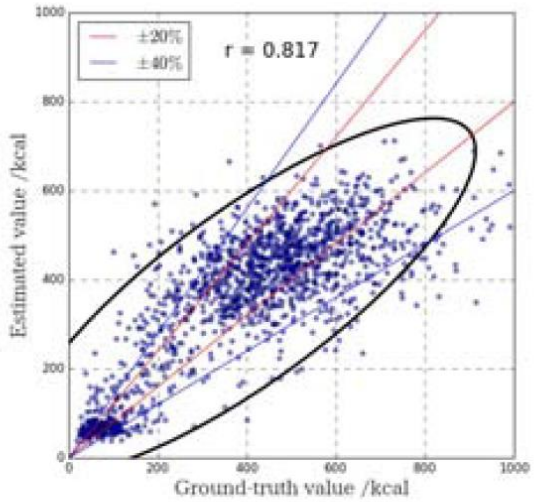
Food Diary

RESEARCH ARTICLE

Fig. 5. Testing results of food detection and recognition.



(a) Single-task CNNs. The correlation coefficient is 0.778.



(b) Multi-task CNNs. The correlation coefficient is 0.817.