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**Project Title:**

Developing an algorithm to read nutritional labels

**Research Question/ Problem Addressed:**

Development of an Artificial Intelligence (AI) tool that will automatically extract, parse and save nutritional information from store-bought products.

**Project Abstract:**

This is part of the Healthy Diet for a Healthy Life 2021 research project which is a transnational Joint Programme Initiative project. One aspect of this dietary project is to document the nutritional information that is presented on labels of all foods available in grocery stores.

Currently, the process of gathering nutrient information from food packaging is manual and involves taking a picture of the nutritional label and transcribing the information into a database. This approach is inefficient and we are seeking a student that is keen in exploring AI with particular interest in optical character recognition who can develop a system to optimise and automate this process.

**Typical tasks a student will carry out include:**

- Store the captured images in a central location
- Confirm existing annotations with label images
- Preprocess the images using Python
- Use AI to automatically extract text from labels
- Compare the extracted text with existing labels to calculate the accuracy
- Document work completed
- Weekly team meetings
- Work as part of a multi-disciplinary team of computer scientists, engineers, and nutritional scientists

**Technologies Utilised:**

Python (Numpy, Scikit-Learn, Scipy, Pandas)