```python
def img_model_with_feature_cooking():
    dataset = DatasetHandler.load_dataset(path_to_segments_file)
    [images, score, images_val, score_val] = dataset.get_imgs_with_labels(...)

    input_shape = dataset.get_input_shape()
    model_base = ResNet50(weights='imagenet', include_top=False, input_shape=input_shape)

    training_features = model_base.predict(images)
    validation_features = model_base.predict(images_val)

    # here it's possible to split the computation
    # save the training_features, validation_features
    # and load them repeatedly after

    model_top = build_simple_top_model(input_shape=training_features.shape[1:])
    model_top.compile(...)

    history = model_top.fit(training_features, score, ...
        validation_data=(validation_features, score_val))
```