**EE 475 PROJECT PROPOSAL**

**Description:** Recognition and classification based on the camera images of consumer products on the shelves. The project will be realized using the Vispera Database which contains items loosely cropped from retail shelf images. The associated task consists of training a classifier over 180 classes to recognize new instances from these categories with a confidence mechanism, which can be used to rank potential class matches.

**Deliverables:** Graphics showing success rates over the test set using different confidence rates.

**References:**

* **Object Recognition from Local Scale-Invariant Features**. Lowe, IJCV 2004.
* **Segmenting Scenes by Matching Image Composites**. Russell, Efros, Sivic, Freeman, Zisserman, NIPS 2009.
* **Describing Objects by their Attributes**. Farhadi, Endres, Hoiem, Forsyth, CVPR 2009.
* **Attribute-Centric Recognition for Cross-Category Generalization**. Farhadi, Endres, Hoiem, CVPR 2010

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