**Capstone Project 1 ideas:**

1) **Image recognition website (**deep learning algorithms)

Real Examples: Amazon Recognition, Microsoft Azure Cognitive Services,

Google Cloud Vision API

This website would allow users to upload images and have them identified by a TensorFlow model. It can identify objects and scenes in images.

One of these Tensoreflow models will be used: Inception V3, ResNet50, Xception

Additional features:

* Each user can sign up in order to save their previous pictures/ searches. Otherwise, they can use the website without saving.
* **Image annotations: This feature shows p**roperties such as the date it was taken or the location where it was taken
* Image sharing: This feature allows users to share images with others. This can be done by email, social media, or through a link…
* …

2) Image classification website (machine learning algorithms)

Real Examples: Google Images, Pinterest, Flickr

This website is typically used to categorize images into a limited number of pre-defined categories, such as "cat," "dog," "car," or "house."

One of these Tensoreflow models will be used: Inception V3, ResNet50, Xception

Additional features:

* Each user can sign up in order to save their previous pictures/ searches. Otherwise, they can use the website without saving.
* Image tagging: This feature would allow users to tag images with keywords. This would be useful for organizing images and for making them easier to find later.
* Image voting: This feature would allow users to vote on images. This could be potentially used on how the model predicted the category correctly.
* …

3) Item r**ecommendation website:**

This website would allow users to enter their interests and then display the prediction of a machine learning model for the items that they might be interested in.

One of these Tensoreflow models will be used**: Models from** TensorFlow Hub models or TensorFlow Recommenders models

Additional features:

* Each user can sign up in order to save their previous items/ searches. Otherwise, they can use the website without saving.
* Filtering options: Users should be able to filter recommendations by category, genre, price, and other criteria. This will help users to find recommendations that are more relevant to their interests.
* Recommendation feedback: Users should be able to provide feedback on recommendations. This feedback can be used to improve the accuracy of recommendations in the future.
* …

Tech stack:

* Python (Flask) for backend and possibly Python for frontend as well (because the second capstone will be mostly JavaScript, React, etc.)
* HTML + CSS/ Bootstrap