Dog breed image classification

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Goal

- To come up with a model to identify the breed of a dog in a given image.
- To allow users to access the model via a website.

Model training

- We initially trained a SVM (using the stanford_dogs dataset) to get a baseline performance. We got an validation accuracy of 6.29%.
- We then used transfer learning on Resnet (using the Tsinghua dogs dataset) on Google Colab. We got an validation accuracy of 77%.

Website

- We built a website to allow users to upload their own images for classification. Users get a list of breeds with a score for each breed.
- The website server uses Flask.

Github

- The repository is available at
  https://github.com/ShouvikGhosh2048/AML-project

Contributions

- Siddhant Chaudhary:
  - Worked on setting up DVC.
  - Worked on setting up transfer learning on Resnet.
- Shouvik Ghosh:
  - Worked on the baseline SVM.
  - Worked on the Flask website.

Thank you!