I. Guess Who Tree:

```
                        Can your animal fly?
                         /            \
                       Yes            No
                        |              |
               Are they an insect?   Are they a common
                  /        \          house animal
                Yes        No          /        \
                 |          |        Yes        No
          Are they green?  It's a bird!
            /        \
          Yes        No
           |          |
    It's a dragon fly!  It's a butterfly!
```
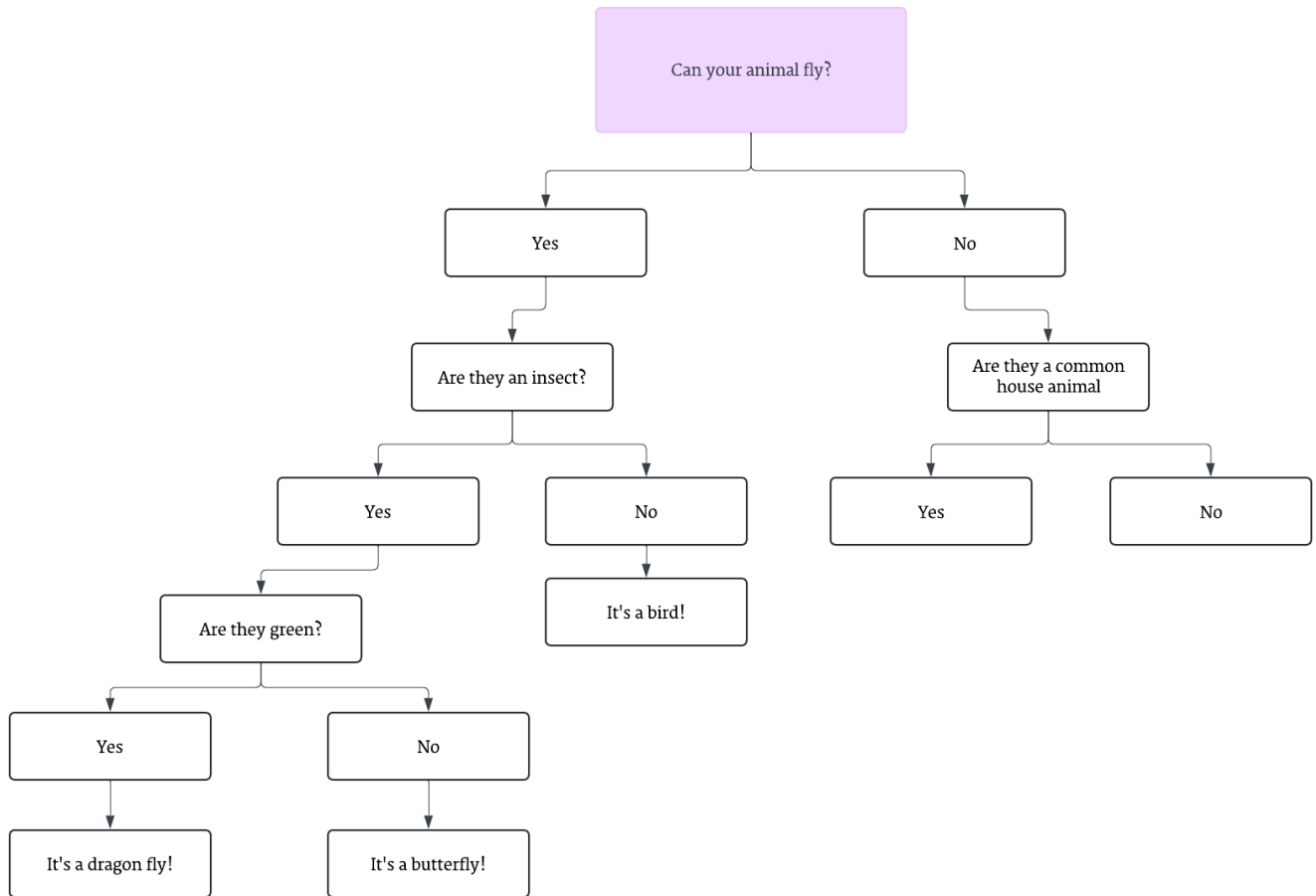
II. AI Pattern Recognition

Pattern recognition became more and more popular as more websites applied algorithms and these can be seen either mathematically or physically. This pattern recognition is the process of–ironically–recognizing the patterns given by data using a machine learning algorithm. They then classify this data based on statistical information and, due to this, their application potential is essential for innovation.

Pattern recognition is often classified in three different aspects; Continuous, Discrete or Discrete Binary variables. These are also called features, which are the measurement of one or more computations of data that categorizes significant characteristics of an object. For example, A face has eyes, ears, nose, cheeks, eyebrows etc. are features of the face. In this case, a set of features are grouped up and form the vector. With pattern recognition: Data patterns are found rapidly and accurately, unfamiliar objects are filtered and identified and, overall, Recognizing patterns has more room for automaticity due to its ease.

Real-Life applications of this are image processing, segmentation and analysis that gives human-like recognition to machines designed for image processing. In addition to radar signal classification and analysis which is a method used to classify things like AP mine detection and identification. And finally, Speech recognition which has the most success as it uses various algorithms of speech recognition that avoids problems like phoneme levels of description and treats largest units such as words as patterns. Along with many others.

In conclusion, pattern recognition is more advantageously used to teach machines to become more adept with the classifications of data more human-like by using algorithms.

Work Cited

Jain, Sandeep. "Pattern Recognition | Introduction." *GeeksforGeeks*, 4 April 2024, https://www.geeksforgeeks.org/pattern-recognition-introduction/. Accessed 25 September 2024.

III. Weekly Reflection

- A thing that went well for me last week was a meeting that I had with a makeup brand that wondered if I would be okay with being "face tester" for my friend who recently joined their team. It was a great experience and it further reinforced my idea that I like taking on new experiences!
- A challenge that I faced was my nervousness of studying for my Statistics test because of the uncertainty of what would be on the test
- I plan to, at the end of my last class or any break in between, actually record and list out what I have to do because I kept forgetting things I had to do!