

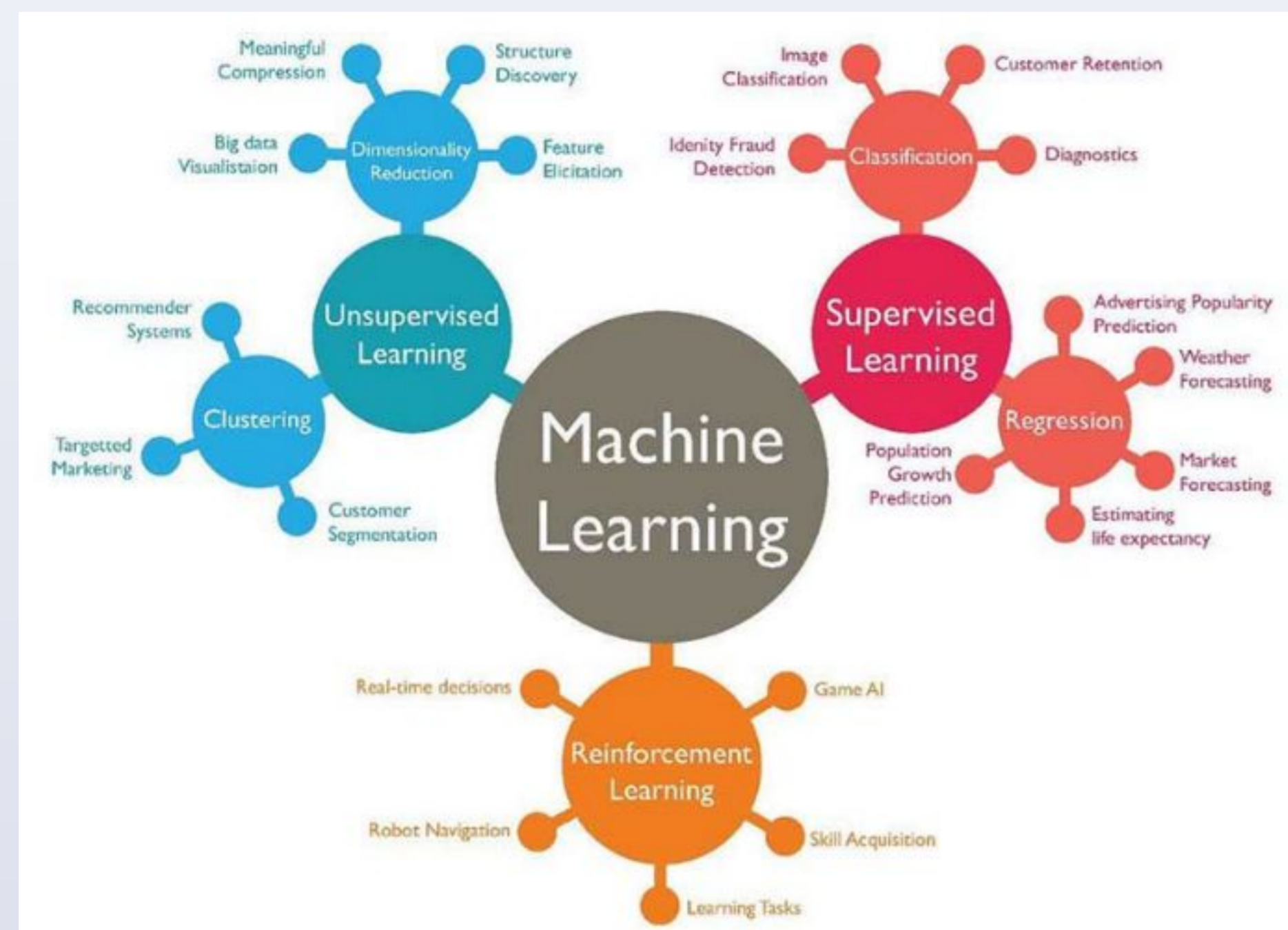
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ABSTRACT



Firstly, we acquainted ourselves within the concept and the implementation of three of the Machine Learning algorithms which are known as Decision Tree, K-Means and Artificial Neural Network. What next step brought us was, with the high awareness of deficiency in Turkish sources for Machine Learning algorithms, the visualization of all three algorithms which then followed by the interactive Turkish web sites.

Visualization was one of the main techniques that made us thought the best idea for non-professionals to understand the concept of Machine Learning algorithms and that was the main reason we visualized all three algorithms. Again, interactive web site was one kind of an accurate idea for teaching Machine Learning algorithms to non-professionals because it was not in any kind of source for Machine Learning and it was a powerful learning method. After implementing and visualizing the Algorithms; interchanging our ability to transfer both learned methods and intelligence with the most useful feedbacks of non-professionals, who are experimented by the group, was on the line and it is accomplished in the most optimal way it is possible. Eventually, we set up our website which contains the interactive learning materials and visualisations of Machine Learning Algorithms. Another milestone for us was contributing to open source. Now we are waiting the last steps for the contribution of our Decision Tree visualisation to the Bokeh Library which is one of the leading Python visualisation libraries and which we used for our visualizations.

OBJECTIVES

- Creating Interactive and Educational Web-Apps for Machine Learning Algorithms
- Visualizing Machine Learning Algorithms
- Introducing Machine Learning Algorithms to ordinary people
- Creating Turkish source for Machine Learning

DECISION TREE



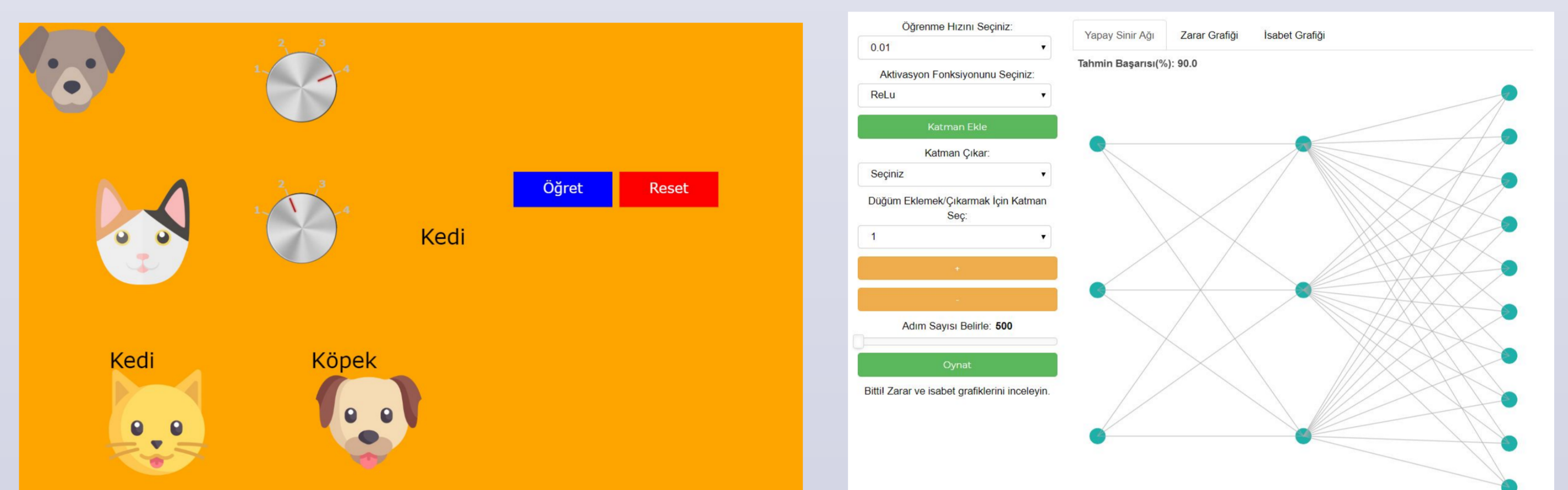
- Decision Tree Algorithm is visualized by using Python's Bokeh Library.
- The tough problem of visualizing the Decision Tree Algorithm is solved by implementing the most optimal algorithm acquired from a paper.
- Educative web-pages for Decision Tree Algorithm is created by using d3.js

K-MEANS



- K-Means Algorithm is visualized by using Python's Bokeh Library.
- Educative web-page for K-Means Algorithm is created by using d3.js

ARTIFICIAL NEURAL NETWORKS



- Artificial Neural Network Algorithm is visualized by using Python's Bokeh Library.
- Educative web-page for Artificial Neural Networks Algorithm is created by using d3.js

CONCLUSIONS

- An experiment is conducted on non-professionals in order to improve our website by their feedbacks.
- Feedbacks from non-professionals formed the last version of our interactive and educative website.
- Feedbacks were accurate because the experiment was interactive. Therefore, our website also became interactive.
- In feedbacks, non-professionals stated they could digest the concepts of the Machine Learning Algorithms well.
- We are on the last stage of contribution to the Bokeh Library. Hopefully, our Decision Tree Visualizer will be published in Bokeh's website.
- As a result, we produced beneficial website in Turkish for those who are not familiar with Computer Science or Machine Learning to understand the concepts of Machine Learning Algorithm.

REFERENCES

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