Marine Animals Classification Using Artificial Intelligence Technique

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Overview

- Motivation behind Project
- Model
- Results
- Conclusions
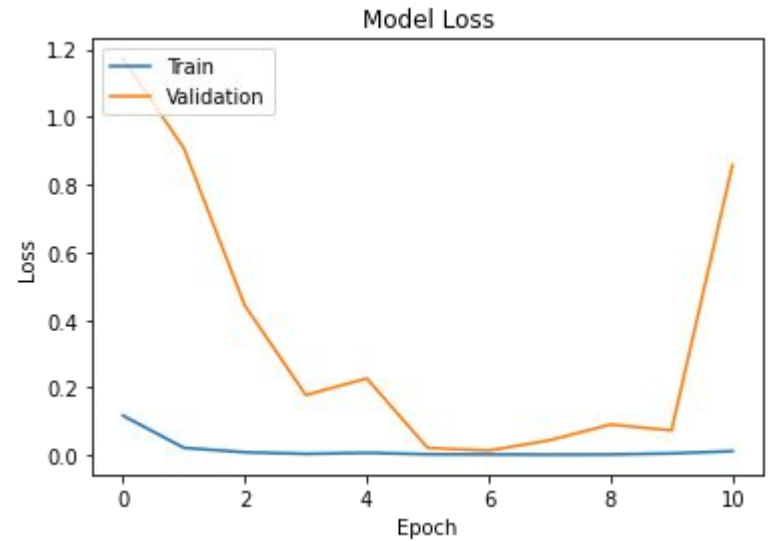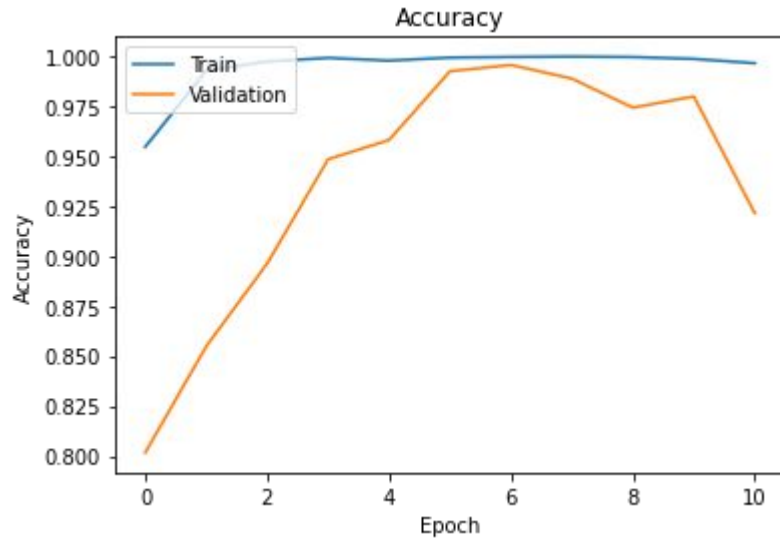- Takeaways from the REU Experience

Motivation

- The ocean covers more than 70% of the planet surface.
- However, 80% of our ocean is mapped, unobserved, and undiscovered.
- From mapping and describing the physical, geological, and chemical aspects of the deep ocean waters, scientist are working hard to increase our understanding of the ocean realm as well as unlock other secrets about the diverse aquatic life.

Convolution — Pooling — Fully Connected — Output — Input

Feature Extraction — Classification
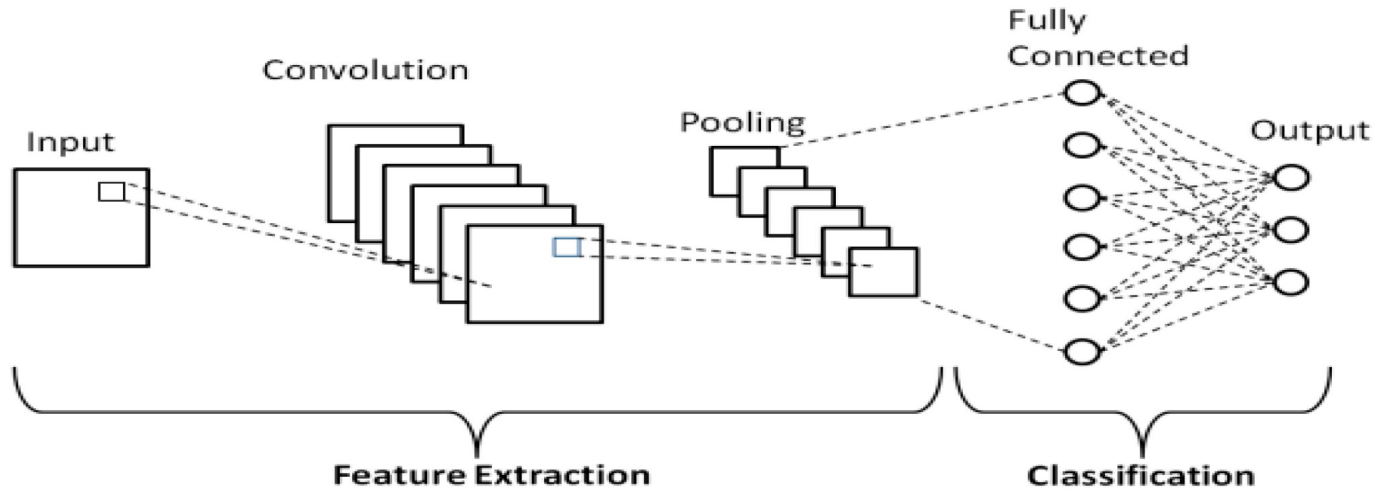
- I built a model for the Marine Animals Classification using CNN (Convolutional Neural Network) which is an AI algorithm.

Results

● The accuracy of the CNN model was about 98%.

Conclusions

I was able to use the model to prove that we can use AI to efficiently detect and classify marine animals.

Takeaways from REU Experience

I learned different softwares tools such as

- Github
- Visual studio Code
- Google Colab

Acknowledgments

I would like to thank all the instructors that opened my eyes to the world of data science and provide more of an outlook of ways we can use technology to find out mysteries of not only things in the data science world but in the deep sea aquatic ocean life that can be very beneficial to the medical field which is my field of interest .

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