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PROBLEM STATEMENT & HYPOTHESIS

Deep Learning

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Currently, it is increasingly difficult to connect with nature. I hear more and more talk about the "detox" of social networks, or how some people dedicate one day of the week to not being near their cell phones. Of course, the internet and technology have helped us in many aspects, to progress and discover, however, at the same time it has generated a greater interest in seeing nature through a camera than in person. Giving a poetic sense and at the same time wanting to give more importance and visibility to nature, its landscapes, views, immensity, and beauty, it is my intention to provide a tool that can transform an image of a person into a "natural" version.

Basically, as input, we will have an image of a person and as output, we will have that same image with details and patterns provided by nature. In addition to being able to use generative algorithms, the goal is to use one called "Stylized Neural Painting", which adds stroke prediction in order to "generate vivid and realistic painting artworks with controllable styles"[1].

Different images from different landscapes can be used as data sets, such as space, forests, the sea, glaciers, mountains, etc.

As an example of how the tool would work, it would be that if the person in the input image has blue eyes, the generated image will have the texture and colors of the waves of the sea or the sky.

1. Zou, Z., Shi, T., Qiu, S., Yuan, Y., & Shi, Z. (2020). Stylized Neural Painting. *ArXiv*. https://doi.org/10.48550/arXiv.2011.08114