

Goals:

The goal of our AI system is to minimize carbon emissions while maintaining energy efficiency through the use of well-placed solar panels in urban areas. Our AI system will allow organizations to easily enter the business of renewable energy. By installing solar panels on buildings and other locations identified by our AI as optimal, we can help organizations reduce energy costs while taking a step towards attaining carbon neutrality.

Environment:

The main environment our AI system will be adapting to is the physical environment, or nature. Our AI would operate within our own private organization, acting as consultants to environmental sectors of other organizations, businesses, and governments that are seeking to move towards green energy and attempt to fight environmental threats like climate change. It will take in features such as geographical orientation, local weather patterns, energy consumption trends, and shading from neighboring structures. The stakeholders of our system would be our consultees, i.e. the organizations, businesses, and governments that consult with us. The impact of this project would be overwhelmingly positive as our customers will learn how to be environmentally friendly while cutting down on energy costs in the long run. Of course, they would need to pay a fee for the consultation on top of the installation, shipping, and maintenance costs of the solar panels which could amount to a sizable sum of money, leading to less capital available for other spending. Changing weather patterns and new obstructions could also lead to suboptimal conditions in the future. However, the solar panels will pay themselves off in the long run, making the investment well worth it.

Adaptation:

The system could adapt by changing its weightage on certain environmental factors like geographical orientation, local weather patterns, and energy consumption trends based on the rate of change of these factors. The inner environment might change depending on if the model is constantly being trained and optimized on a certain subset of data. Information on future projections of these factors could help maximize the impact of the solar panels long-term, but also introduces complicating factors as inaccurate projections could lead to worse results.