Sustainability Scanner: Empowering Consumers To Make Eco-Friendly Grocery Purchases

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Environmental degradation is an imminent and ever-growing problem, and everyone must do their part to help solve this issue. However, a major problem people face when trying to lead a green lifestyle is that it is simply too difficult and time-consuming to make sustainable grocery choices. To address this issue, my app, Sustainability Scanner, displays an easy-to-understand score for the holistic sustainability of food products. My novel scoring algorithm takes various metrics regarding a food product (ie. ingredients used, greenhouse gas emissions, level of processing, etc.) and calculates an accurate indicator of a product's overall sustainability (ie. eco-friendliness). The algorithm considers the membership of relevant components gathered from publicly available datasets compiled by credible environmental institutions. These components are grouped further into categories and classifications. Weighting factors are then utilized in three stages as part of a multi-stage Analytical Hierarchy Processing-Stochastic Multicriteria Acceptability Analysis model to find the overall product sustainability rating. The weighting factors for groups are assigned based on the component’s impact on the environment and how difficult it is for a company to achieve sustainability in that area. A percentile subcategory score is also provided as part of the app for comparison between the sustainability of similar products. This solution will allow consumers to make informed grocery purchases and empower them to adopt a more sustainable lifestyle.

Awards Won:

Fourth Award of $500

Oracle Academy: Award of $5,000 for outstanding project in the systems software category.