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(57) Abstract :

The present invention introduces a sophisticated machine learning-based system designed to revolutionize the understanding and management of complex interdependencies between urbanization, agricultural demand, and migration dynamics. By leveraging diverse datasets encompassing urban demographics, agricultural statistics, climate, and migration patterns, the system employs advanced analytics and machine learning models, including regression, clustering, and neural networks, to predict and dynamically analyze urban demand for agricultural products, identify optimal locations for urban farming, and model rural-urban migration patterns. The invention further features an intuitive user interface for real-time visualization and customization, empowering urban planners and policymakers with actionable insights to navigate the challenges of modern urban environments and foster sustainable coexistence between urban and agricultural ecosystems.

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