

FoodieFinder: Visual Food Recognition Project

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Project Abstract:

"FoodieFinder" is an ambitious project aimed at creating a visual food recognition system that harnesses the power of machine learning, classifiers, and neural networks to identify a vast array of food items through images. This project strives to revolutionize the way we identify and interact with food, making it accessible and informative for a wide range of users.

The inspiration for FoodieFinder emerged from a common predicament many of us face when encountering a delectable, unfamiliar dish: we yearn to discover more about it. Whether you're exploring a new cuisine at a restaurant, perusing a local market, or experimenting with culinary creations at home, FoodieFinder aspires to solve the age-old challenge of food identification by allowing users to simply capture an image and receive instant information about the dish.

The technical foundation of FoodieFinder rests on the application of advanced machine learning techniques. Notably, convolutional neural networks (CNNs) will play a pivotal role in analyzing the images. To ensure precision in food recognition, the system will be trained on a diverse and comprehensive dataset of food images that covers an extensive range of cuisines and dishes. This training process will empower the neural network to recognize various food items based on distinctive features, such as color, shape, texture, and composition.

FoodieFinder is designed to provide more than just the name of the food. It offers a comprehensive food experience by delivering additional details such as ingredient lists, nutritional information, and links to related recipes. Users will have the opportunity to explore different culinary traditions, gain insights into the cultural significance of various dishes, and access step-by-step cooking instructions. This feature is not only valuable for novice cooks seeking to expand their culinary repertoire but also for seasoned food enthusiasts looking for inspiration.

What sets FoodieFinder apart is its potential for personalization. The system will be built to adapt and improve over time based on user interactions and preferences. This continual learning

process ensures that the system becomes increasingly accurate and useful, making it a dependable companion for food lovers.

Our ultimate vision for FoodieFinder is to develop a user-friendly mobile application that empowers users to explore and learn about food from diverse cultures with ease. The project's applications are vast, from assisting individuals in making informed dietary choices and managing allergies to promoting cultural awareness through cuisine. FoodieFinder is not just a food recognition system; it's a gateway to a world of culinary exploration, providing the tools and knowledge to bridge cultural gaps through the universal language of food.

In summary, FoodieFinder represents an exciting venture into the world of visual food recognition. It offers a practical solution to the challenge of food identification while fostering culinary exploration and encouraging cross-cultural exchange. Join us on this thrilling journey as we delve into the realm of food recognition and embark on a delightful culinary adventure with FoodieFinder, a project that promises to transform the way we experience and appreciate food.