MICHIGAN STATE UNIVERSITY Beta Presentation Recycling Identification Scanner

The Capstone Experience

Team GM-RIS

Matt Miller Jerry Hoskins Safiya Fareed Andres Tamayo Keerthi Ramesh Pedro De Oliveira Mitkiewicz Department of Computer Science and Engineering Michigan State University Fall 2024



From Students... ...to Professionals

Project Overview

Problem

- Identifying plastics by sight is unreliable, and sorting by type is essential
- Solution
- An infrared scanner that measure reflectance to identify plastic types
- Mobile app to allow data visualization and exports
- Training mode to retrain with new plastics

System Architecture



Plastic Trainer Desktop App



Data Page





Scan Page



Scanner



Team GM-RIS Beta Presentation

What's left to do?

- Goals
 - Case for Scanner
 - UI Polishing
 - Expand Training Data
- Other Tasks
 - Document Code Further
 - Refine Code

Questions?



The Capstone Experience