

NutriPack

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Problem Statement

Maintaining a consistent, healthy diet at campus dining halls is **difficult**, and the resulting food waste costs **billions**.

- Dining halls disproportionately serve **unhealthy food** - [source](#)
- Food waste cost North Carolina about **12.7 billion dollars** in 2019 - [source](#)

Students and faculty need a solution to manage their on-campus dining, and dining halls need a solution to reduce their food waste.

Change starts with us, here, at NC State





Solution

Our solution, **NutriPack**, aims to tackle both of these challenges with **software**.

NutriPack

Sustainable nutrition starts here



So, what is NutriPack?

- A **meal planner** for dinners
 - Official NC State menu data
 - FDA dietary guidelines
 - Filterable search engine
- A **demand + emissions forecaster** for dining hall managers
 - Real-time inventory status
 - Data-backed demand forecasts
 - AI-powered emissions projections



Time for
a demo



Search filters for menu items

- Filters created based on FDA dietary guidelines and dining hall nutritional information
- Helps navigate a wide range of dietary needs
- Mitigates allergen and restricted food exposure



List of Filters

Diets

- Vegan
- Vegetarian
- Pescatarian
- Keto/Atkins
- Halal
- Gluten-free
- Wolf approved
- Gluten-free

Allergens

- Milk
- Eggs
- Fish
- Shellfish
- Tree Nuts
- Peanuts
- Wheat
- Soy

Nutrients

- High Carb
- Low Carb
- High Fiber
- Low Fiber
- High Protein
- Low Protein
- High Fat
- Low Fat
- Low Saturated Fat
- No Trans Fat
- Low Sodium

The Impact of NutriPack

**Better Overall
Health**

**Fewer Carbon
Emissions**

**Reduced Food
Waste**



The Future of NutriPack

DEPARTMENT OF COMPUTER SCIENCE
SENIOR DESIGN CENTER

- Recommendation to build the tool with CSC Senior Design Center
 - Refine current prototype
 - Develop mobile version
 - Support for custom diets
- Direct integration with NCSU's nutrition counseling
- Use of LLMs to provide positive reinforcement towards healthy eating



Thanks!

Do you have any questions?

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