Customized Solutions
A unique solution for a unique problem

+1 469-533-7285

EMAIL US
john.mendez@infovision.com
www.infovision.com
The hallmark of innovators is the ability to create unique solutions that address the often unexpected and unusual real-world challenges. InfoVision NxtGen iLab’s team of R&D practitioners, thought leaders, and technologists collaborate to create such solutions that change the way we live, work, and play.

Our partner ecosystem, proprietary tools, and domain knowledge combine to help build customized IT solutions for unique client challenges. We employ rapid prototyping and a data-driven approach that allows us to think big, start small, fail fast, learn rapidly, and refine.

We are known for **innovation** that makes real impact.

Our client, a public school, wanted to modernize the way it identifies and manages the food allergies of students. Current break time, being only an hour, hardly allowed for food to be served to 200+ students, let alone screen and interview them to identify food allergies. To top it, the onus was on the school management to ensure that a student doesn’t consume foods that she/he is allergic to.

The InfoVision team created an intelligent food and allergen detection framework- Smart Food Detection - combining computer vision, edge computing, IoT, and face recognition technology. This customizable solution goes above and beyond the initial requirement and enables end-to-end cafeteria management.
The other challenges this solution solves are:
- Long wait times holding a food tray
- Cafeteria maintenance
- Long billing wait and crowd management
- Overall inconvenience for students

The result? Near real-time detection of food allergens, not only preventing possible food allergy incidents but also improving the experience for both parties.

How did InfoVision plug in innovation where it really matters

Leveraging the latest technologies available and breaking new ground, Smart Food Detection is a pioneering solution by InfoVision that holistically addresses interconnected cafeteria issues:

1. **Identity detection**: To identify students through facial recognition using computer vision and machine learning
2. **Food detection**: To detect every item picked up by the student and add it to the cart for billing based on the tracking camera feed analysis
3. **Allergen detection**: An AI-based analytics engine on cloud that scans food items against the food allergen information stored for every individual
4. **Alert the cashier**: If a potential food allergen is identified in an item, the cashier receives an alert and can then communicate this to the student before billing
5. **Billing and payment**: To generate the bill before students reach the billing counter. The payment method can be via the app or card, which is customizable. The integration of AI-driven kiosks further reduces the wait time.

The solution is supplemented by a powerful e-commerce engine that integrates specialized microservices like video streaming, person identification, food detection, nutrition, and food manager services. These are in turn supported by a core set of microservices like order management, security, verification, inventory management, and many more – that collectively form the e-commerce ecosystem.
Would you like to know more about the value we can bring to your business through similar or other digital solutions?

+1 469-533-7285

EMAIL US
john.mendez@infovision.com
www.infovision.com

Talk to an InfoVision SME