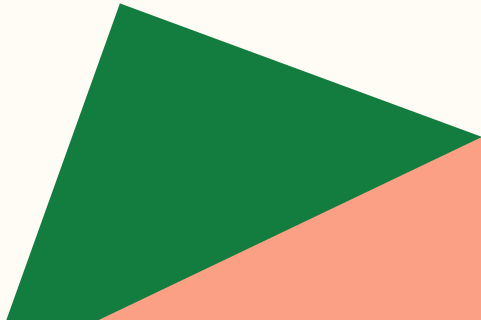# Food Sage OCR

Ingredient Labels Safety Optical Recognition

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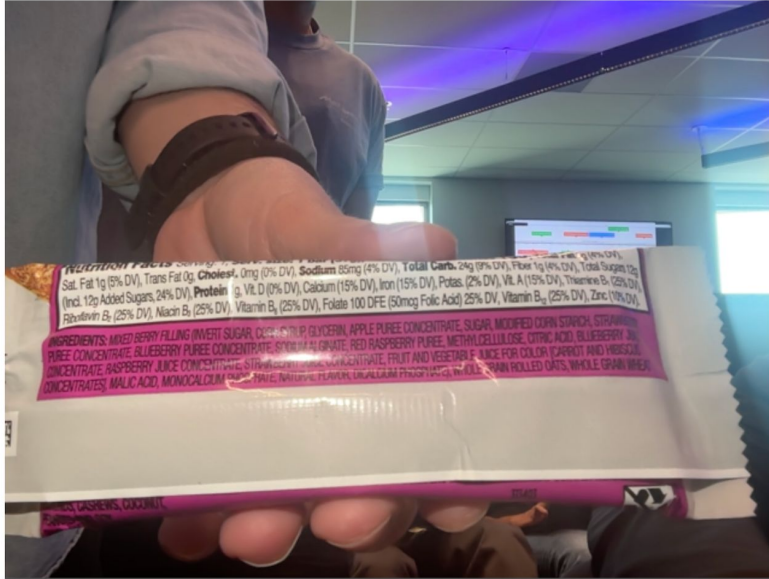
The Problem

Food labels are hard to read,
ingredients have obscure names.
Is it safe to eat?

Live Scan

- (25%
- Naon
- DY),
- Vitamin
- Folate
- (S0meg
- Folkc
- Add)
- Vertrrtion
- Sat.
- Fai
- Fal
- Gg,
- Co~=2
- Omg
- (0%
- Sodium
- 55mg
- D),
- Telie
- (Inci.
- 120
- Added
- Sugars,
- 245
- Protein
- 1g,
- Caiokam
- 1596
- Potes
- 2500
- Revtavin
- Viamin
- Fosie
- Simcg
- p——
- 195DV
- FOg
- Chole'
- (0.
- SodimE5ig
- (6%
- TOUR
- oty
- 120Aed
- 24%
- Protin

Approach

Optical Character Recognition of food labels, checking a product against a database to determine ingredients safety.
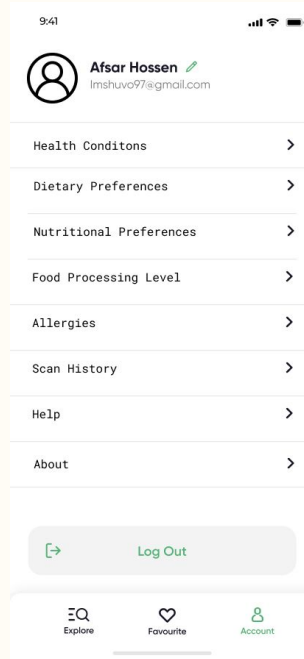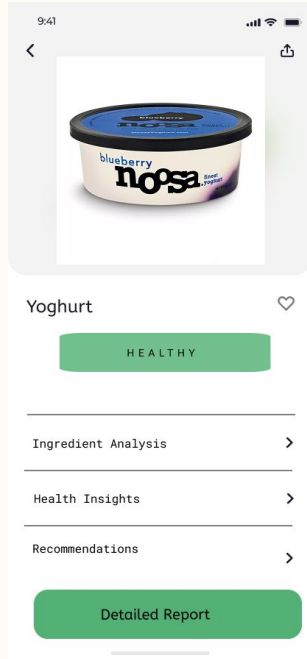
```
27    # US-Approved, EU-Banned
28    list_2 = [
29        "Azodicarbonamide", "Brominated vegetable oil (BVO)", "Potassium bromate",
30        "Titanium dioxide (E171)", "Red 40", "Yellow 5", "Yellow 6", "Blue 1",
31        "Blue 2", "Green 3", "BHA", "BHT", "Propyl gallate", "TBHQ", "Ractopamine",
32        "Chlorine-washed chicken", "GMOs (specific varieties)", "Glyphosate residues",
33        "MSG", "Synthetic growth hormones (rBST, rBGH)", "Bromochloromethane",
34        "Propylene glycol", "Carrageenan (in infant formula)", "Butylated hydroxytoluene",
35        "Sodium benzoate (with Vitamin C)", "Olestra", "High fructose corn syrup",
36        "Atrazine residues", "Erythrosine (Red 3)", "Sudan dyes", "Dimethylpolysiloxane",
37        "Flame retardant chemicals", "Sodium nitrite/nitrate (excessive use)", "Carbon monoxide-treated meats",
38        "Arsenic residues in chicken feed", "Neotame", "DHA/ARA (synthetic omega-3s)",
39        "Methyl eugenol", "4-MEI (caramel coloring)", "Sulfur dioxide (excessive use)",
40        "Perchlorate residues", "Phosphate additives", "Synthetic vanillin", "Furan",
41        "Coal tar dyes", "Sodium lauryl sulfate", "Formaldehyde", "Dieldrin residues",
42        "Endosulfan residues", "Fumonisins", "Sodium ascorbate", "Sodium aluminum phosphate",
43        "Aspartame", "Cyclamate", "Dextrose (high-processed)", "Ethyl acetate",
44        "FD&C colors (in general)", "Heptylparaben", "Maltodextrin", "Sodium bisulfite",
45        "Potassium bisulfite", "Propylparaben", "Saccharin", "Sucralose", "Tert-Butylhydroquinone (TBHQ)",
46        "Disodium EDTA", "Polysorbates", "Corn syrup solids", "Benzoic acid", "Ethanolamine",
47        "Hexane-extracted soy protein", "Hydrolyzed vegetable protein", "Modified starch",
48        "Partially hydrogenated oils", "Sodium cyclamate", "Sodium erythorbate",
49        "Sodium metabisulfite", "Sodium polyphosphate", "Sodium saccharin",
50        "Sodium stearoyl lactylate", "Tert-Butylhydroquinone", "Vanillin (synthetic)",
51        "Vegetable mono- and diglycerides", "BVO in citrus sodas", "Sulfuric acid residues",
52        "Dimethyl dicarbonate", "Ethoxyquin", "Magnesium carbonate"
53    ]
54
55    # Super Safe EU-Approved
56    list_3 = [
57        "Vitamin C", "Vitamin E", "Beta-carotene", "Riboflavin", "Citric acid",
58        "Malic acid", "Pectin", "Agar", "Guar gum", "Xanthan gum", "Locust bean gum",
59        "Lecithin", "Gellan gum", "Steviol glycosides", "Erythritol", "Sodium bicarbonate",
60        "Calcium carbonate", "Sorbic acid", "Lactic acid", "Acetic acid", "Potassium sorbate",
61        "Sodium citrate", "Magnesium stearate", "Tartaric acid", "Calcium chloride",
62        "Sodium alginate", "Calcium lactate", "Potassium chloride", "Silicon dioxide",
63        "Lecithins", "Inulin", "Natural tocopherols", "Copper gluconate", "Iron sulfate",
64        "Ascorbyl palmitate", "Choline bitartrate", "Dextrins", "Natural fruit extracts",
65        "Beta-glucans", "Ferrous lactate", "Sodium ascorbate", "Cocoa butter", "Tapioca starch",
66        "Resveratrol", "Flavonoids", "Chlorophyll", "Lycopene", "Polyphenols",
67        "Anthocyanins", "Curcumin", "Spirulina", "Chia seeds", "Hemp seeds",
```

Niche Dataset

Focusing query on three categories:

- Not approved\safe for food
- Approved in the US, but not Europe
- Super safe, approved in EU

App Mockup

An app with OCR core features, supplemented by a user profile providing dietary restrictions, allergies and overall tracking of diet safety.