IntelliTag

Keyword Extraction and Identification Using
Azure OpenAI GPT- 4 Vision

AFFINE
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Microsoft
Solutions Partner

Data & AI
Azure

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IntelliTag: Keyword Extraction and Identification powered by Azure OpenAI GPT-4 Vision

Affine designed and developed a Azure OpenAI GPT 4 Vision based solution to generate attributes for image assets classified into explicit & implicit attributes and extraction of textual features from wide range images & leverage these data points for driving various downstream marketing initiatives.

KEY SOLUTION COMPONENTS OF PROPOSED SOLUTION

1 TRAINING MODULE

- Prompt engineering using GPT-4V to identify explicit, implicit & textual attributes

2 INFERENCING MODULE

- GPT Prompt integration with web UI to view predicted images labels

3 FEEDBACK MODULE

- Human in the loop via web UI allowing user to tag a prediction as correct or incorrect, option to modify predicted label

4 RETRAINING MODULE

- Prompt reengineering utilizing manual feedback to improve predictions, continuous improvement, integration & deployment

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IntelliTag: Expected Benefits

EXPECTED BENEFITS

ENHANCE PRODUCT DISCOVERY
Empower customers to easily find the food products they're looking for by generating accurate and relevant tags from product images.

OPTIMIZE PRODUCT DESCRIPTIONS
Craft compelling and informative product descriptions that accurately reflect the visual content, enhancing customer engagement and satisfaction.

STREAMLINE MARKETING CAMPAIGNS
Leverage extracted tags to create targeted marketing campaigns that resonate with specific customer segments and drive sales.

UNCOVER HIDDEN TRENDS
Gain valuable insights into customer preferences and market trends by analyzing keyword patterns across large image datasets.
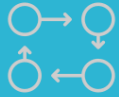
ACCURATE TAGS IDENTIFICATION
Precisely recognize and extract pertinent tags from images of food products while adhering to essential governance and audit practices.
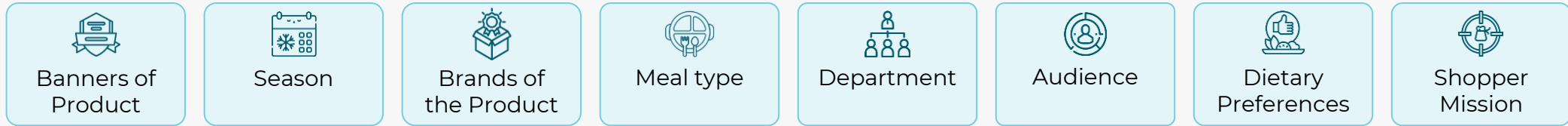
MINIMIZE MANUAL EFFORT
Optimized the tagging process by reducing manual effort to generate metatags while establishing a dependable, consistent data source for keywords & tags.

IntelliTag: Analytical Approach

Keyword Categories – PoC Phase

Different Categories Of Keywords

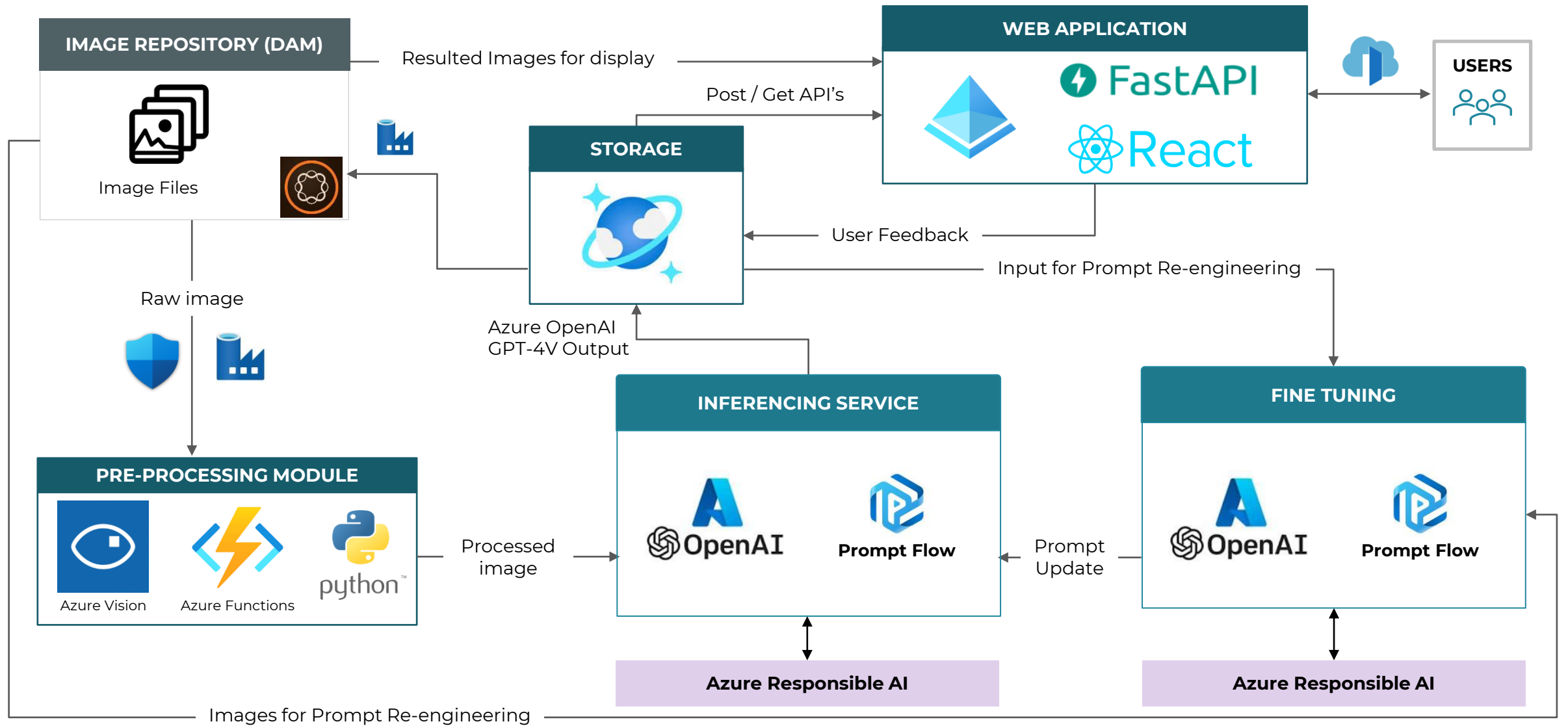| Banners of Product	Season	Brands of the Product	Meal type	Department	Audience	Dietary Preferences	Shopper Mission

Keyword Categorization

The keywords are **sub-divided into explicit, implicit & textual attributes**

Explicit Attributes	Implicit Attributes		Textual Attributes	
• Elements • Department	• Dietary Preferences • Season • Campaign	• Division • Audience • Meal Type	• Brand • Banner	• Partners • Year

AI Capabilities Required

• Prompt Engineering Using AOAI GPT-4V	• Prompt Engineering Using AOAI GPT-4V • Image Classification - Azure AI Vision Services* • Image Classification - Azure ML (e.g. ResNet/Inception)*	• Prompt Engineering Using GPT-4V • Custom OCR Model – Azure AI Vision*

* Only if required in Phase 3

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IntelliTag: Overall Architecture

THANK YOU

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