Project settings:

This project is designed to empower farmers by providing tools to monitor the status of their land and business, particularly in emergency situations when expert support is unavailable. You will help test, design, and develop one or more key modules within the project, such as disease identification, dialogue, or knowledge management system. This project can be expanded into 1-2 Honours or Master of Research projects. We are seeking passionate students with interests in computer vision, natural language processing, biology, and/or STEM outreach.

* NLP accommodation

Develop System to help farmers detect plant disease and get immediate response with AI assistance.

Prefer a phone app but can do web app

December – January

Final on campus on January, finish before February

Use LLM, upload image to the model, ask it what’s the plant disease and it can answer.

* Automate this process to the smartphone (mimic the farmer)
* Set up the image and send to chatGPT AI Model to see it’s classificiation
* Start planning and set up
* Add LLM, Voice to work capabilities
* Recommendations and chat to expert

Plan to extend the AI internship after February

Similar project: <https://github.com/Haseeb-Akhlaq/GPT4Vision-Flutter-Plant-Disease-Detechtor>

Real-life app: Plantix

Meeting: 20/12 or First of January

**Types of Crops**

1. **Cereal Crops** (Grains)
   * Rice
   * Wheat
   * Maize (Corn)
   * Barley
   * Sorghum
   * Millet
2. **Pulses** (Legumes)
   * Lentils
   * Chickpeas
   * Peas
   * Kidney Beans
   * Black Gram
   * Green Gram
3. **Vegetable Crops**
   * Tomatoes
   * Potatoes
   * Carrots
   * Spinach
   * Cabbage
   * Onions
   * Bell Peppers
4. **Fruit Crops**
   * Apples
   * Bananas
   * Mangoes
   * Oranges
   * Grapes
   * Watermelons
   * Strawberries
5. **Oilseed Crops**
   * Sunflower
   * Soybean
   * Mustard
   * Groundnut
   * Sesame
   * Canola
6. **Root and Tuber Crops**
   * Sweet Potatoes
   * Yams
   * Cassava
   * Beets
   * Radishes
7. **Cash Crops**
   * Cotton
   * Coffee
   * Tea
   * Sugarcane
   * Tobacco
8. **Fodder Crops** (For Livestock)
   * Alfalfa
   * Sorghum
   * Clover
   * Napier Grass
9. **Medicinal and Aromatic Crops**
   * Aloe Vera
   * Lavender
   * Mint
   * Turmeric
   * Lemongrass
   * Chamomile
10. **Spices and Condiments**
    * Chili
    * Pepper
    * Ginger
    * Cardamom
    * Coriander
    * Cumin
11. **Plantation Crops**
    * Coconut
    * Rubber
    * Coffee
    * Tea
    * Cocoa
12. **Floriculture (Flower Crops)**
    * Roses
    * Orchids
    * Marigolds
    * Tulips
    * Jasmine

**Notes**

2 videos or report

1. Include functionalities (kinda like final report) (include screenshorts interface) (Come up with a great story) 10 days before next semester (23/2)

- Add a chart showing how the user might use the app, step by step

- What is the challenge of farmers ( câu truyện )

- Future work suggestions (technical and on technical)

2. Demo to non-tech user (farmers)

3. Export the app to android built

4. Image cropper

Considerer adding

- photo crop

- model switching

**Additional Information**

2 years master degree of research > coursework master/honors(can be understood as master year 1)

3 years PHD

ACmm 30/5 submission