Themes:

1. Food security
   1. Nutritional imports exports
   2. Nutritional density per land area
   3. Subsidies cause imbalances of land use
2. Beef exports
3. Sentiment of farmers or public Agri opinion

Requirements vs research papers vs expectations

|  |  |
| --- | --- |
| **CA2** | **Note** |
| *General* |  |
| * Analyse Ireland Agri |  |
| * Compare it >> analyse other countries |  |
| * Forecasting |  |
| * Sentiment Analysis |  |
| * Evidence based Recommendations |  |
| * PM framework, detail individual contributions |  |
| * Reference dataset/licence |  |
| *Programming* |  |
| * 1 Jupyter notebooks per task, max(5) * Annotation * Justification of code choices * Include as many tools as possible from class (UI, API, Interaction etc..) |  |
| *Stats*   * Inferential Stats * Parametric/Nonparametric tests between other countries * At least 5 Inferential techniques * Descriptive stats * Justification of methods * Document calculations in appendix |  |
| *ML*   * At least 3 models * Predict, classify, recommend, clustering, sentiment, time series * Hyperparameter tuning GridsearchCV * Sentiment analysis producers/consumers * Supervised & unsupervised * dimensionality reduction * result comparison |  |
| *Data Prep & Vis*   * detail the process of acquiring your raw data including licence implications * EDA * Interactive dashboard for farmers |  |

Research papers themes

* Topics
  + Crop management

Image detection – data from sensors.

* + - Yield prediction
    - Disease detection
    - Weed detection
    - Crop quality
  + Livestock
    - Production
    - Animal welfare
  + Water management
  + Soil management
  + Sentiment Analysis
    - the determination of farmers’ attitude towards events, policies and adoption of new technology.
    - Naive Bayes algorithm being the most commonly used method for Classification

Notes:

1. Farmers dashboard, Dash, Streamlit viola, Heroku deployment, github
2. Supervised and unsupervised : classification clustering all under sentiment analysis

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