AI APPLICATIONS IN AGRICULTURE

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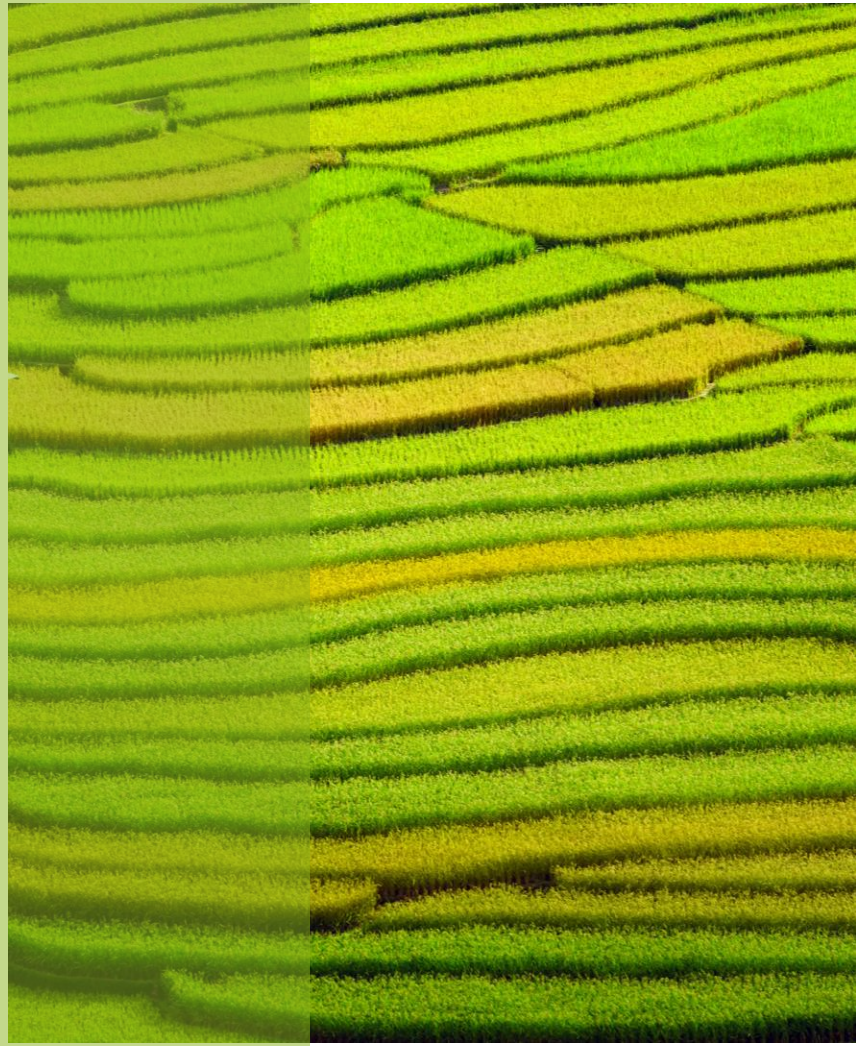


AGENDA

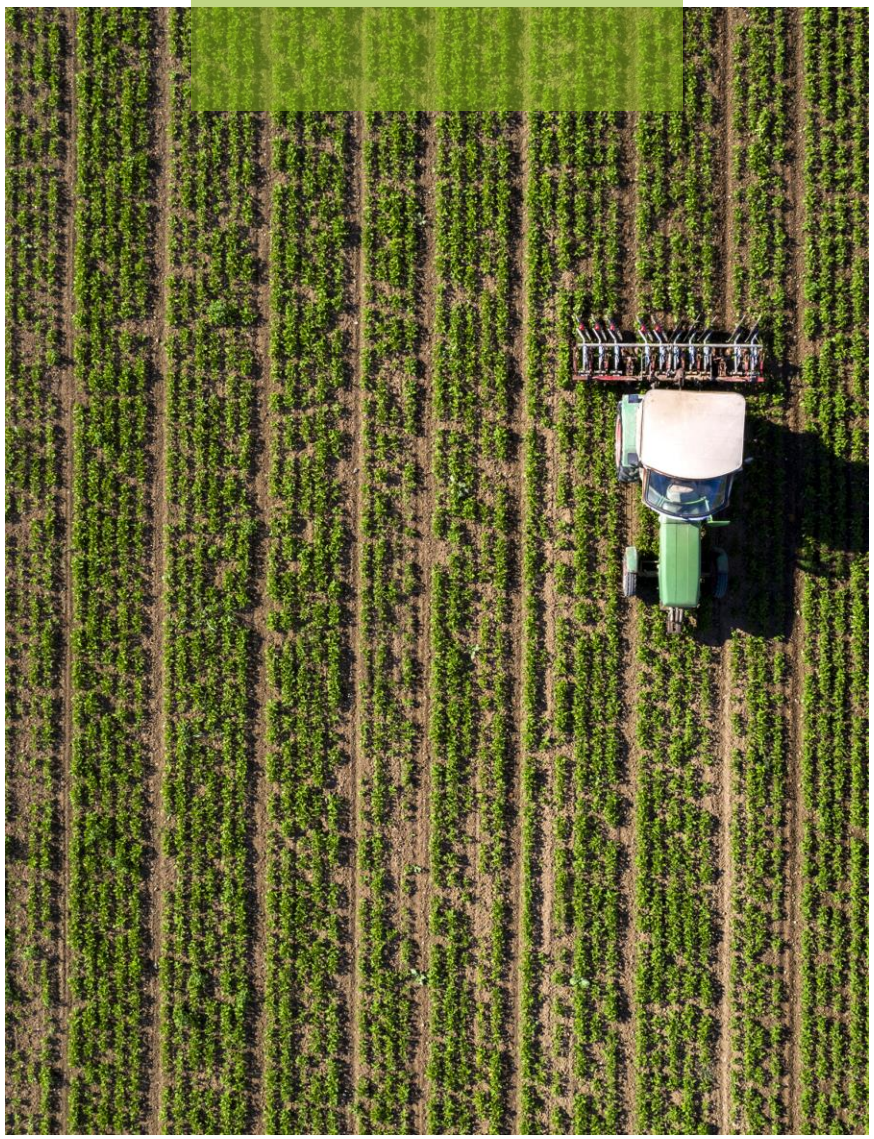
Problem Statement

Research

Code Discussion

Ethical Concerns

Future



PROBLEM STATEMENT

How can AI be used in agriculture to improve inefficiencies and increase overall production?

Applications of Artificial Intelligence in Agriculture

- Discusses different ways AI can be used: Soil management, crop management, weed management, disease management, etc.
- Summarizes AI techniques in agriculture listing potential benefits and limitations for each
- Lists potential challenges and the outlook for AI use in agriculture

RESEARCH

Assessment of Finishing Pig Weight

- Develops pig weight estimation methods from a handheld imaging system
- Traditional 3D image systems have used both CNN and ANN models in live weight estimation
- The use of a handheld, mobile imaging tool to collect depth data would reduce the need for "perfect positioning" and costly camera installations

CODE DISCUSSION

Detecting Disease on Citrus Leaves

Step 1: Input TensorFlow citrus_leaves dataset

Step 2: Preprocessing

Step 3: Segmentation

Step 4: Feature Extraction

Step 5: Feature Selection

Step 6: Classification

ETHICAL CONCERNS

- Exacerbates existing inequalities in the industry
- Difficulty in understanding the decision-making

THE FUTURE

Meeting Growing Demand

- Improvement of land usage
- Building infrastructure
- User-friendly systems
- Robotics and autonomous systems

CITATIONS

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