# GreenIntellect

AI-based plant disease identification and prediction

# Why is this a needed Industry

People face issues like delayed disease detection, inefficient resource use, and inadequate monitoring, causing economic losses.

### Knowledge Gap and Limited Outreach

A need for continuous learning and community engagement to bridge the knowledge gap and promote sustainable practices.

### Limited Environmental Monitoring

Lack of holistic environmental insights hinders a nuanced understanding of crop well-being.

# Sow Smart, Reap Sustainable: AI-Powered Crop Wellness

Our model integrates advanced hardware and software. Using AI, it offers real-time insights to tackle delayed disease detection and resource inefficiencies, empowering farmers for sustainable and high-yield agriculture.

Upload plant images for immediate disease identification, symptoms, and recommended treatments.

Receive comprehensive details, including Air Temperature, Leaf Temperature, Soil Moisture, Leaf Wetness, Light Intensity, Wind Speed, and Soil Nutrient Content, for optimized crop management.

Green Intellect

# Transforming Agriculture with AI Precision and Community Empowernment

Our AI-Based Plant Disease Identification and Prediction System stands as a comprehensive, user-friendly, and environmentally sustainable solution. By seamlessly integrating hardware and software, leveraging AI/ML technologies, and fostering community engagement, we aim to not only revolutionize agriculture practices but also contribute to a more sustainable and knowledgeable future

# Free Version

- Basic Disease Identification: Limited image uploads for disease identification.
- Diagnosis and Insights: Information about disease, symptoms, causes and treatment recommendations.
- Educational Materials: Basic access to articles, videos, and prevention tips.

# Premium Versions

- Unlimited Disease Identification: Unlimited uploads for larger agricultural operations.
- Full Sensor Data Access: Complete access to all integrated sensors for comprehensive analysis.
- Premium Educational Resources: Exclusive access to premium articles, videos, and resources.
- Priority Customer Support: Dedicated support and priority access to software updates.
- Integration with Precision Agriculture Platforms: Seamless integration for enhanced crop management.

# Business Model

**Partnerships with Agricultural Suppliers:**
Collaborate with agricultural product suppliers for disease being detected.

**Consultation Services:**
Personalized consultation services can be provided to paid users for optimizing crop management strategies.

**Data Monetization:**
Aggregatively analyze and supply anonymized data to agricultural research institutions or organizations for research purposes.

# TEAM MEMBERS

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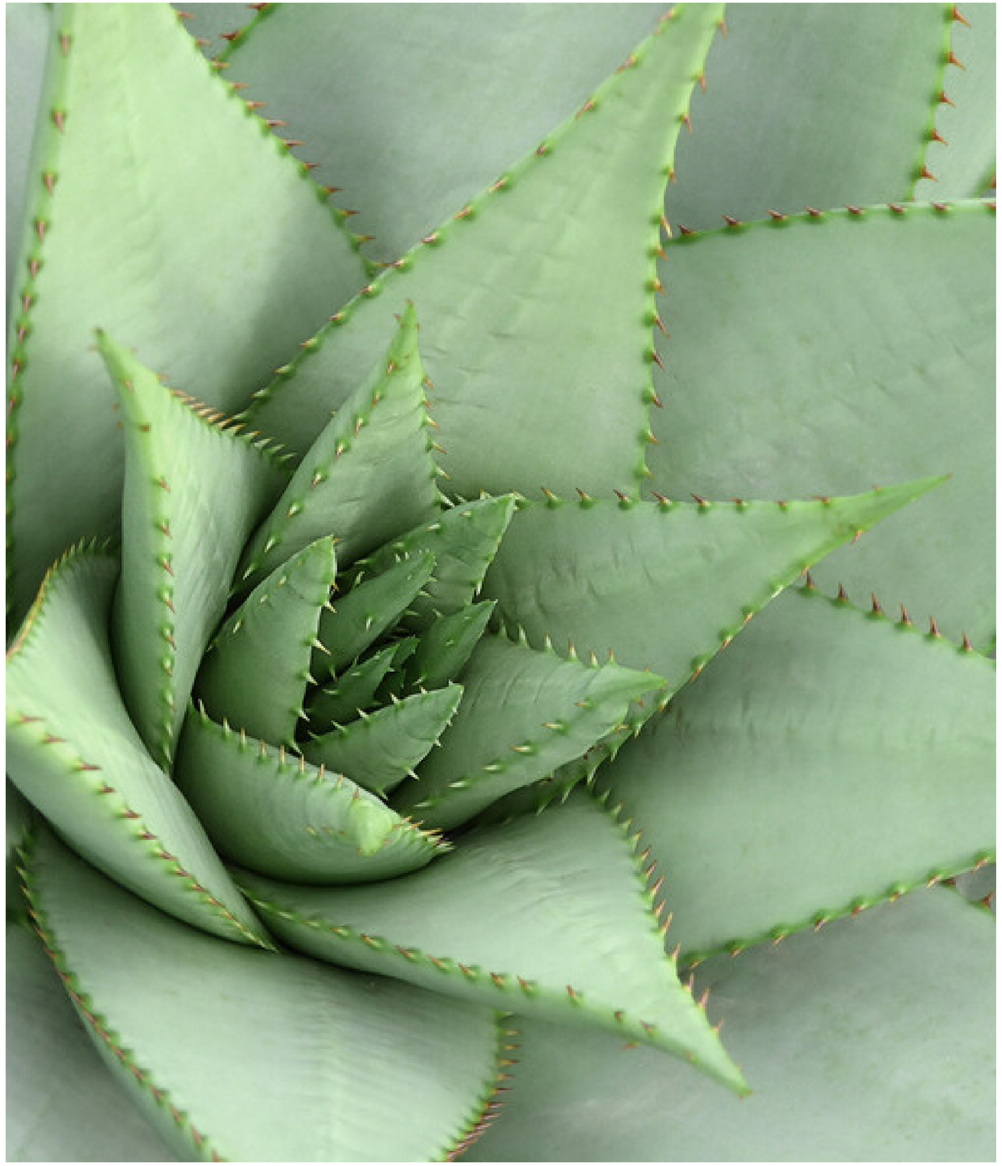

# TECH STACK

**Backend Development**

Framework: Flask and Next.js for web application development and Express.js and Django REST Framework for building APIs.

Database: PostgreSQL or MongoDB for efficient data storage and retrieval.

**Machine Learning / AI:**

Libraries: TensorFlow for building and training machine learning models.

Preprocessing: OpenCV for image preprocessing and manipulation.

Deployment: TensorFlow Serving, Flask for serving machine learning models as APIs.

**Sensor Integration:**

IoT Framework: MQTT for communication between sensors and the backend.

Sensor Data Storage: Postgres for data storage


Thank You