



# KrishiSaathi

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**Empowering Farmers with AI-Driven Insight**

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**Team Rush**

**-AYUSH BISEN**

**-SMEET SHERKI**

# Problem statement

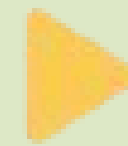
- **Farmers today battle invisible enemies – pests they can't diagnose, markets they can't access, and technologies they've never heard of.**

Bridging this gap isn't a choice—it's survival.....

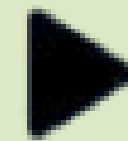
## **Key Challenges:-**

- *Behind on farm tech*
- *No access to fair prices*
- *Few experts to help*
- *Can't afford new tech*
- *Middlemen take most profit*

“Krishi Saathi” connects small farmers with smart technologies, real time expert guidance, and fair markets to maximize their harvests, building a sustainable future for agriculture.



Video/chat with experts → Resolve issues instantly + get tech setup guidance.



Soil+weather analysis → Suggests 3 best crops with 90% accuracy, updating yearly based on farm data.

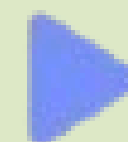
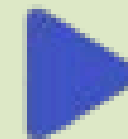
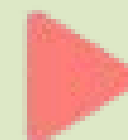


Image scans → Identifies 50+ pests/diseases in 10 sec, saving 40% of crop losses.



Quiz-based → Matches farmers with affordable tools (drip irrigation, solar pumps) + local vendors.



Real-time price alerts → Helps sell at 20% higher margins via direct buyer links.



# Tech Stack

## Frontend

*Next.js 14, shadcn/ui, React Native*

## Backend

*FastAPI, Redis, Celery*

## AI/ML

*Hugging Face, AWS Rekognition, GPT-4o*

## Database

*Supabase, Firestore, Pinecone*

## APIs

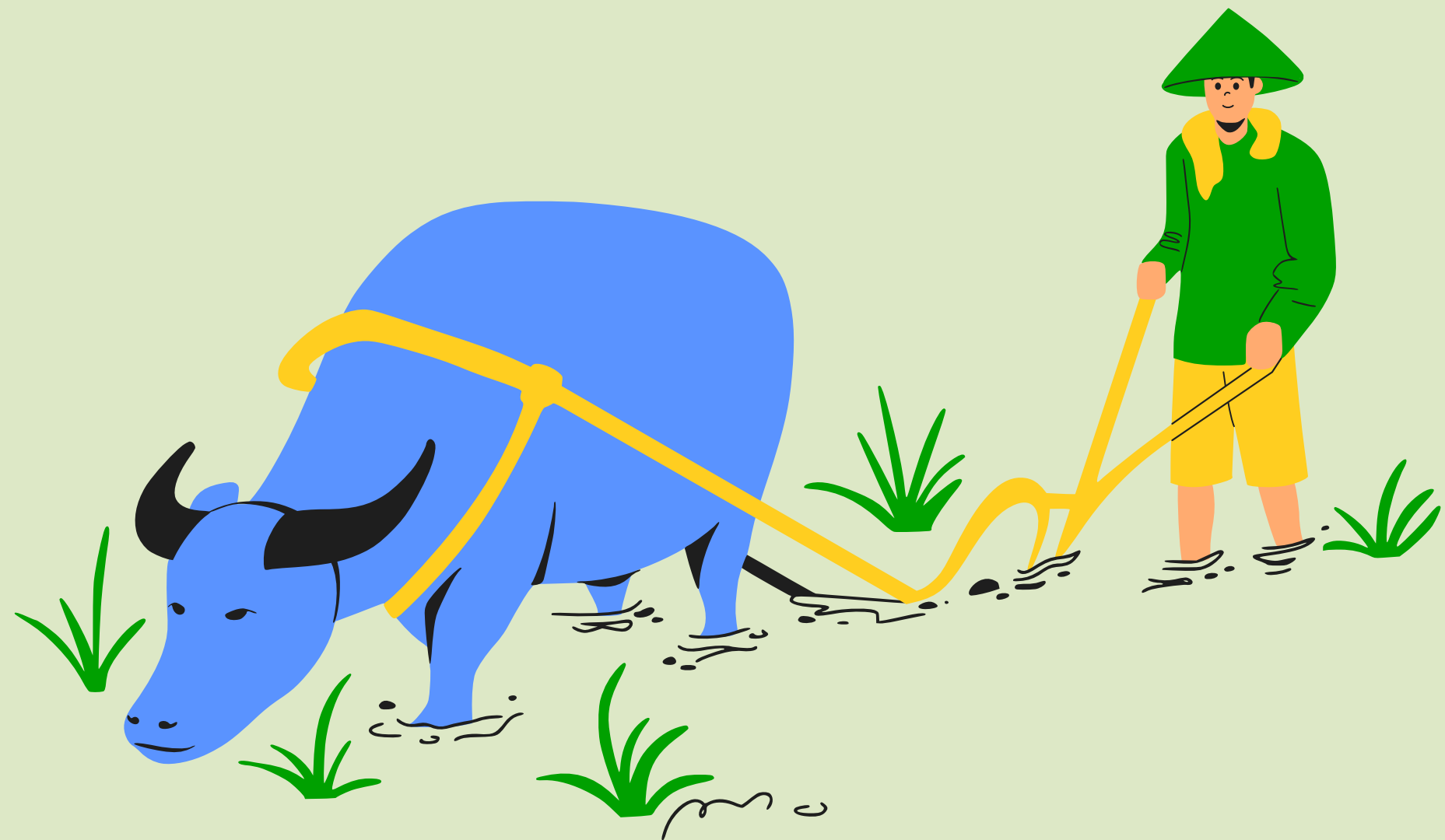
*OpenWeatherMap, LiveKit, AGMARKNET*

## Security


*Supabase Auth, JWT, Tesseract*


## Deployment


*Vercel, Modal Labs, Docker*



- **Impact**

 **Empower Farmers-** AI-driven insights level the playing field for smallholders

 **Boost Productivity** - 30-50% higher yields through optimized crop/pest management

 **Conserve Resources** - Reduce water/fertilizer waste by 40% with precision farming .

## What Makes Us Different?

- ✓ **AI-Driven Decisions** - Real-time crop/pest analysis using computer vision
- ✓ **Rewards System** - Farmers earn XP points for using smart practices
- ✓ **End-to-End Ecosystem** - Combines farming tech, expert help, and market access
- ✓ **Verified Networks** - Direct links to trustworthy suppliers and fair markets

## • Key Benefits

- 🔍 **Smart Decision-Making**
  - Real-time crop recommendations
  - Instant pest diagnosis (90%+ accuracy)
- 🤝 **Direct Market Access**
  - Fair price alerts via AI market tracker
  - Bypass exploitative middlemen
- 📱 **Tech Democratization**
  - Local-language tech suggestions
  - Vendor connections for tools/equipment
- 👩🌾 **Expert Network**
  - 24/7 video consultations
  - Regional best practice sharing



**THANK YOU!**

**Empowering Farmers, Nourishing Nations**