# **AI-Powered Volcano Eruption Detection System**

An Early Warning Platform by Keweenaw Nanoscience Center

#### **Project Overview**

Volcanic eruptions pose serious risks to millions worldwide. Current early warning systems are fragmented, costly, or unavailable in high-risk zones. Our platform uses artificial intelligence to provide a next-generation, real-time monitoring system-combining satellite, thermal, seismic, and gas emission data.



**How It Works** 

- Satellite Imaging: Monitors thermal signatures
- Gas Sensors: Detect anomalies in emissions
- Seismic Activity: Classifies waveform patterns with AI
- Fusion AI Model: Predicts eruption risk and sends alerts



### **Use Cases**

- Emergency management agencies
- Governments in volcanic zones
- Humanitarian and disaster relief NGOs
- Scientific researchers and Earth observation partners

### **Current Status**

- Concept development complete
- Project webpage live
- Public outreach initiated
- Seeking collaborators, pilot sites, and funding partners

## **Get Involved**

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Scan the QR code to visit the project page:

