AI-Driven Flood Intelligence for a Resilient Nation

OST
ALWAYS ON. ALWAYS THERE.

Transforming Data into Action for FEMA's National Flood Insurance Program

Challenge

Flooding remains one of the most devastating and costly natural disasters in the United States. Despite the risks, millions of vulnerable properties remain uninsured, creating a significant protection gap. This lack of coverage leaves families exposed and hampers the nation's ability to recover swiftly from disasters. To address this, FEMA's National Flood Insurance Program (NFIP) actively markets and works with its partners and States to increase coverage. Achieving this goal requires more than just better data—it demands smarter insights at the intersection of risk, opportunity, and public awareness.

Transformation

OST strengthens national resilience through AI-driven flood intelligence, transforming complex datasets into actionable insights. By integrating multiple data sources with predictive modeling, we identify high-risk communities that are most vulnerable to flooding yet least insured.

Our platform delivers:
- Intuitive flood exposure maps for visualizing risk.
- Agentic AI models that predict community participation and optimize outreach strategies.

This fusion of advanced analytics and artificial intelligence empowers agencies and organizations to enhance public safety, target interventions effectively, and build resilient communities.

Outcome

Validated by FEMA leadership, OST's approach demonstrates how data-driven insights can directly improve outreach effectiveness, drive policy adoption, and bolster community resilience. Key results include:

- Reduced campaign guesswork through precision targeting.
- Improved accuracy in identifying underserved areas.
- Empowered decision-makers with transparent, real-time analytics.

OST's solution exemplifies how federal agencies can leverage AI to enhance financial sustainability and strengthen public trust in vital protection programs.

Scalable Model

OST's AI-driven flood intelligence framework is a cornerstone of our innovation strategy. Developed through internal investment, this scalable model aligns with government priorities to enhance national resilience. It also powers initiatives like **FloodGuard** and **FireGuard**, which use AI and analytics to safeguard citizens, infrastructure, and economies. Our approach showcases how data, innovation, and collaborative investment can transform risk into readiness—and resilience into measurable value.