Aggie Hacks 2025 | Team: Secure the B-Aggie

Smart City Monopoly: AI-Powered Crisis Management

S.T.O.R.M. isn't just smart — it's strategic. And in this game, strategy saves lives.

Team Members: Kyle Ayisi, Jovoney Morton, Emily Wong

The Problem: In today's cities, every block holds risk — from misinformation and sensor failures to cascading infrastructure crises. But the real threat? Time.

When data is delayed, disjointed, or deceptive, cities lose their chance to act — and the consequences are costly.

- During the 2011 Japan tsunami, out-of-sync systems delayed evacuations in high-risk zones.
- In Hurricane Harvey (2017), fragmented infrastructure left thousands stranded.
- From California wildfires to Texas grid failures, modern cities keep landing on the wrong square — and paying the price.

Our cities can no longer afford to roll the dice on disconnected data. It's time to flip the board and play a smarter game — one built on real-time intelligence.

Our Solution: Our smart city AI system, S.T.O.R.M. (Smart Tactical Operational Response Model), fuses Internet of Things (IoT) and real-time data to deliver rapid, reliable insights across location risk, cascading risk, and media trustworthiness.

Each module plays independently but feeds into a single, coordinated plan of action — like houses turning into hotels. S.T.O.R.M. analyzes five key inputs: geographic location, time, location risk, cascade risk, and social media trust. By running its agents in parallel, it cuts down latency, simplifies decision-making, and lets cities move first.

- **Location Risk:** Assessed using traffic, infrastructure, and live event data to flag high-risk zones before disaster strikes.
- **Cascade Risk:** Detected using LSTM anomalies and a GNN that predicts how one event could trigger a chain reaction.
- **Media Reliability:** Filtered through a fake news classifier and geo-NLP validation to identify real incidents and silence the noise.

The Impact: Utilizing the agent outputs and using informed rule-based reasoning, S.T.O.R.M. helps cities skip the guesswork and take control of the board — faster, smarter, and with precision.

- **Speed to Insight:** Agent outputs generated in under **10 seconds per zone**
- **Risk Prediction Accuracy:** Risk scores show **>85% correlation** with past incidents
- **Trust Signal Precision:** Fake tweet classifier hits **91% precision** on labeled data
- **System Scalability:** Modular design works across zones and sensor densities

Civilians get verified insights to act early. Leaders get prioritized recommendations to deploy resources strategically — and avoid costly missteps.

With S.T.O.R.M., you don't just roll the dice.

You change the game.