

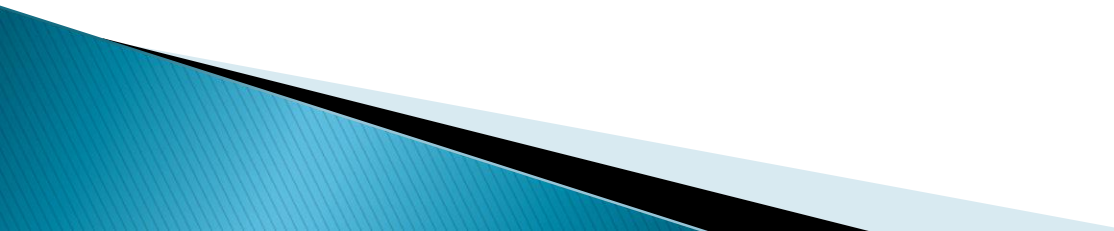
AI-Assisted Home & Building Inspection

AI for Good Hackathon – Hack2Skill

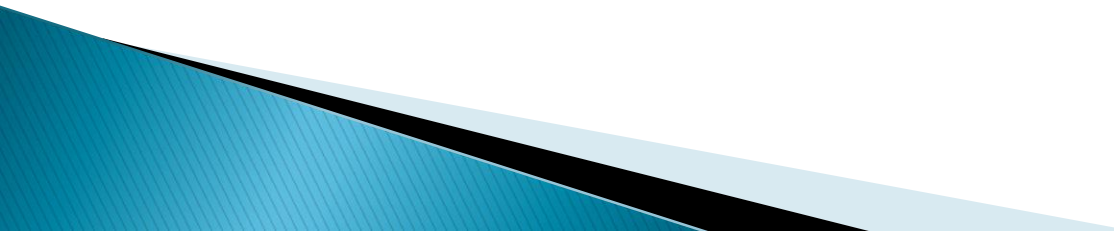
Participant:

Velugotla Mohana Deepthi

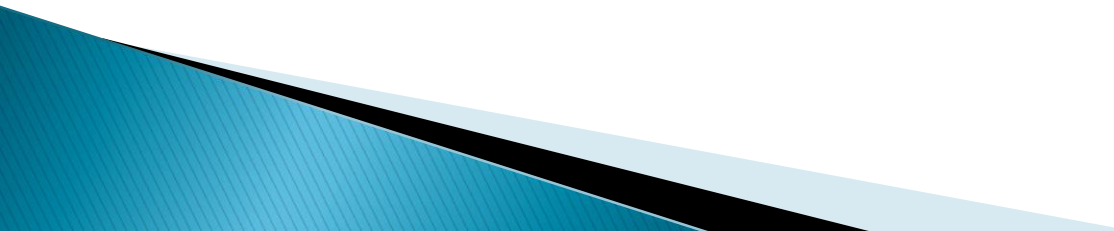
Problem Statement

- Home buyers and tenants often face hidden building defects such as cracks, leakages, damp walls, and unsafe wiring.
 - Manual inspections are time-consuming, inconsistent, and prone to human error. There is no intelligent system to analyze inspection data systematically.
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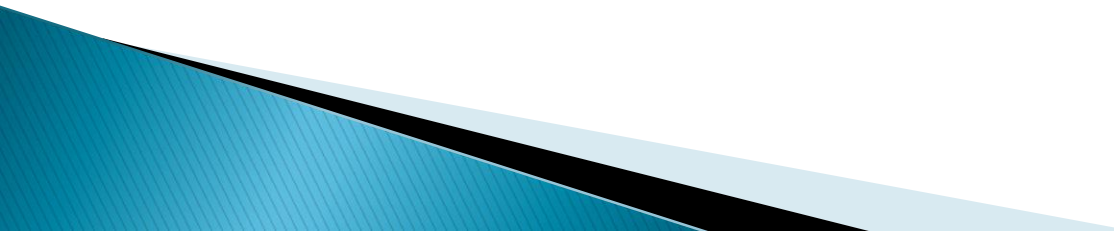
Solution Overview

- An AI-powered inspection system that analyzes inspection text and images to automatically detect building defects.
 - The system generates risk scores and inspection summaries to help buyers, inspectors, and regulators make better decisions.
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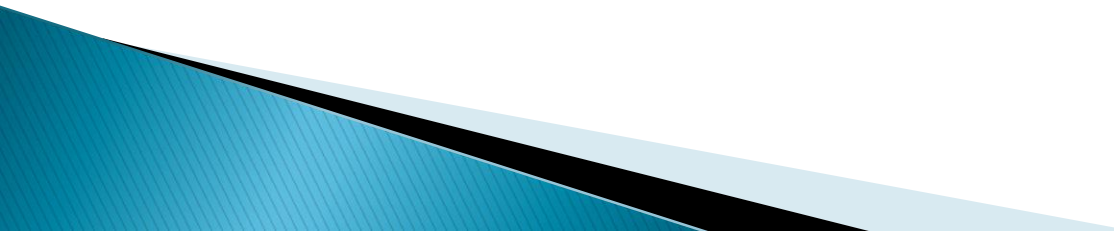
How It Works

- Inspection data (text and images) is uploaded
 - Data is stored in Snowflake
 - Snowflake Cortex / AI SQL classifies defects
 - Risk scores are generated
 - Results are displayed using a simple dashboard
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Impact

- Improves housing safety
 - Reduces inspection time and cost
 - Helps families avoid unsafe homes
 - Supports regulators and authorities
 - Promotes safer urban infrastructure
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Technology Stack

- Snowflake
 - Snowflake Cortex / AI SQL
 - SQL
 - Python
 - Streamlit
 - Cloud Storage
 - CSV datasets
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Thank You