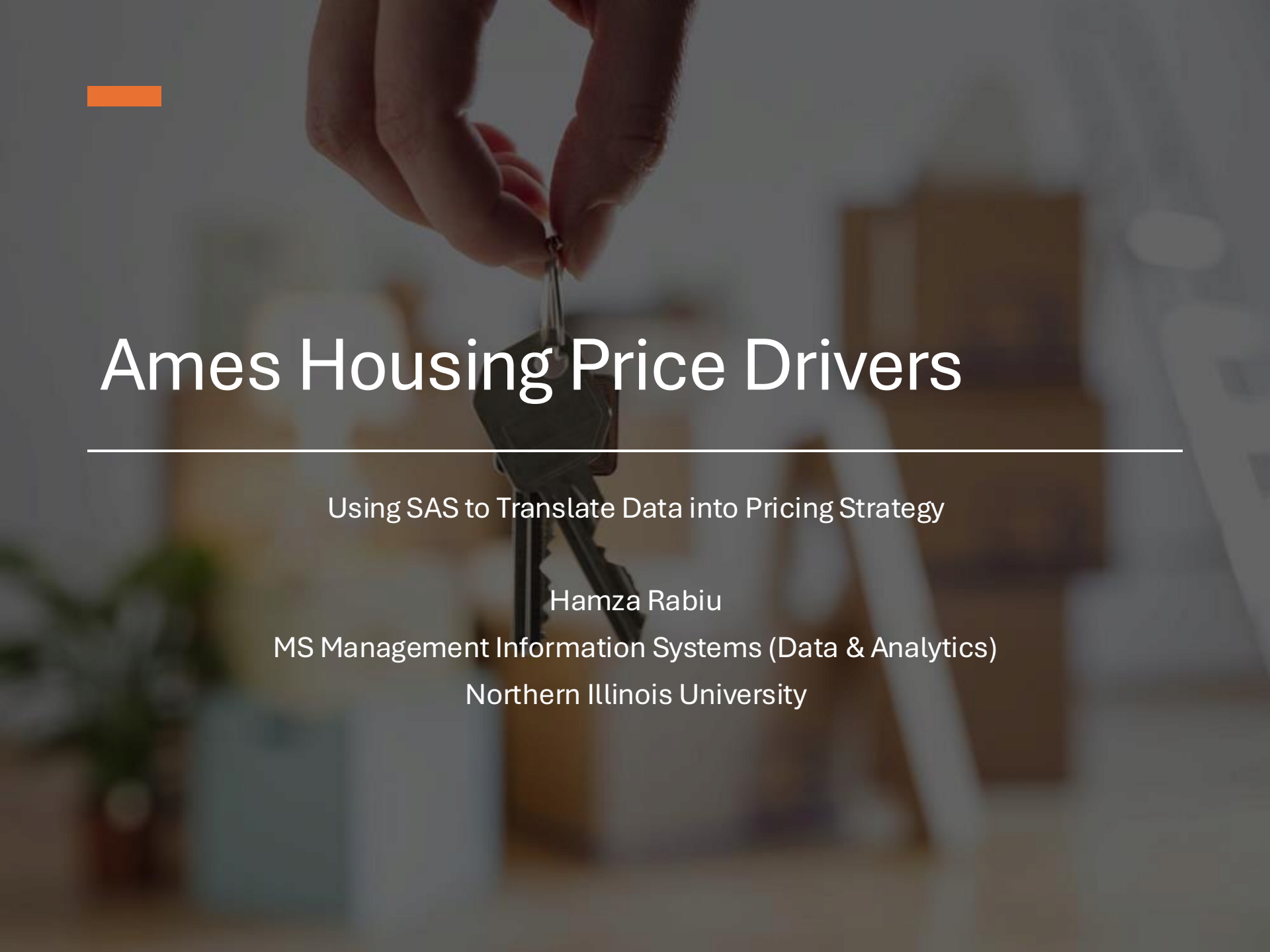

Ames Housing Price Drivers

Using SAS to Translate Data into Pricing Strategy

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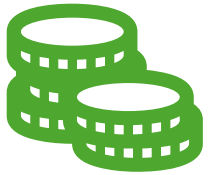
Business Context

Housing prices vary widely even for similar properties

Poor pricing decisions lead to lost revenue and misallocation of capital



Data-driven valuation improves pricing and investment outcomes

Key Questions

Which property features most strongly influence sale price?

Does neighborhood change the value of square footage?

Which upgrades deliver the highest return on investment?

Data Overview

- Ames Housing Dataset (2,900+ residential properties)
- Structural, quality, and neighborhood-level attributes
- Outcome variable: Sale Price

Analytical Approach

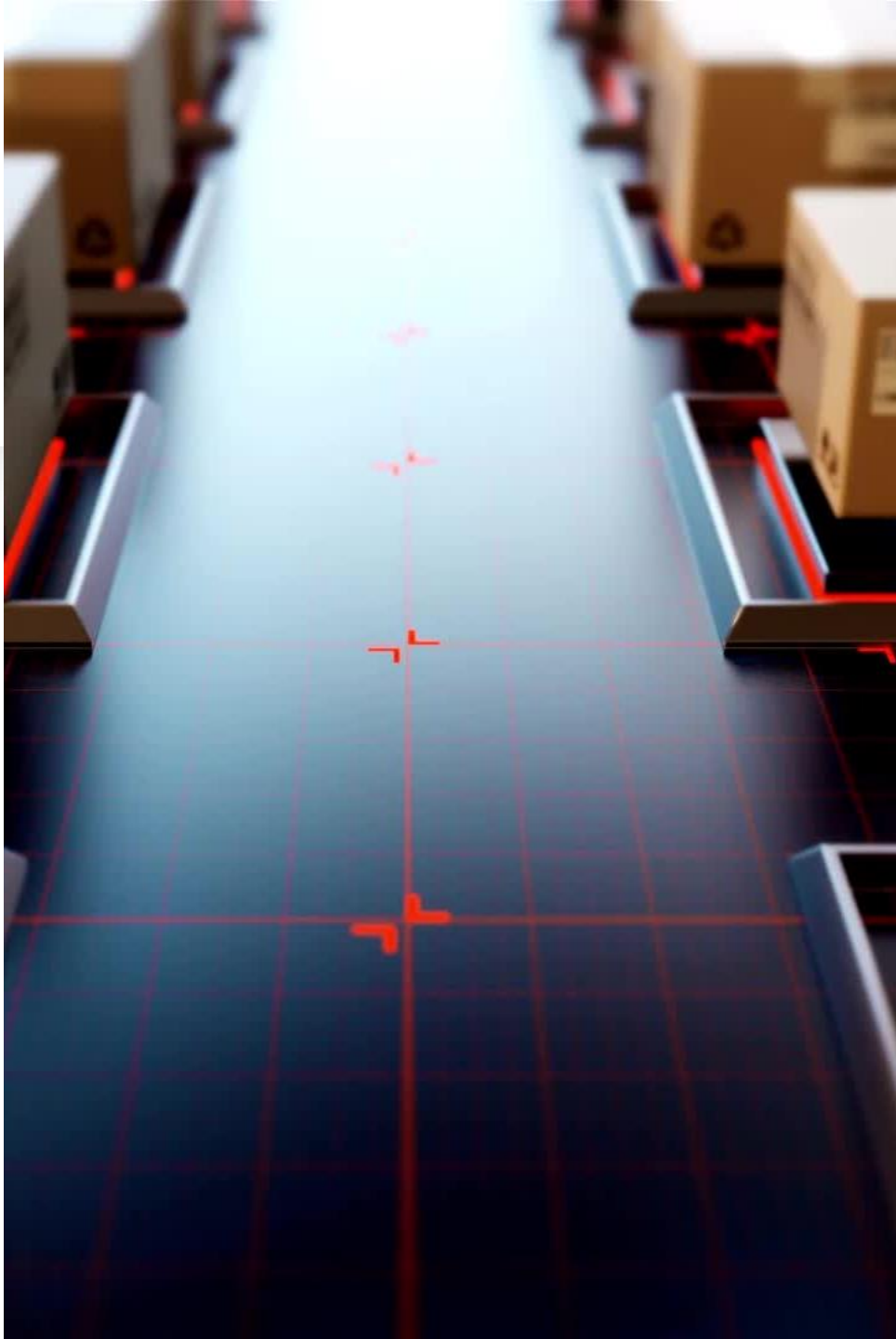
- Correlation analysis to identify strong predictors
- Regression modeling to quantify feature impact
- Moderation analysis to test neighborhood effects
- Statistical validation using SAS procedures

Key Insight #1: Size Matters, But Location Changes Everything

- The living area shows a strong positive relationship with the sale price
- The value of additional square footage varies significantly by neighborhood
- Premium neighborhoods deliver higher price returns per square foot

Key Insight #2: Quality Outperforms Size

- Overall quality is one of the strongest predictors of sale price
- Renovation quality often delivers a higher ROI than expanding lot size
- Strategic upgrades outperform raw square footage increases



Business Implications

- Supports neighborhood-specific pricing strategies
- Guides smarter renovation and investment decisions
- Improves the accuracy of real estate valuation models

Skills Demonstrated

- SAS statistical modeling and diagnostics
- Analytical thinking from problem definition to insight
- Clear communication of technical results to business stakeholders

Why This Matters

Focus on impact, not academic noise

Ability to translate data into actionable decisions

Ready to contribute to real-world analytics and business problems