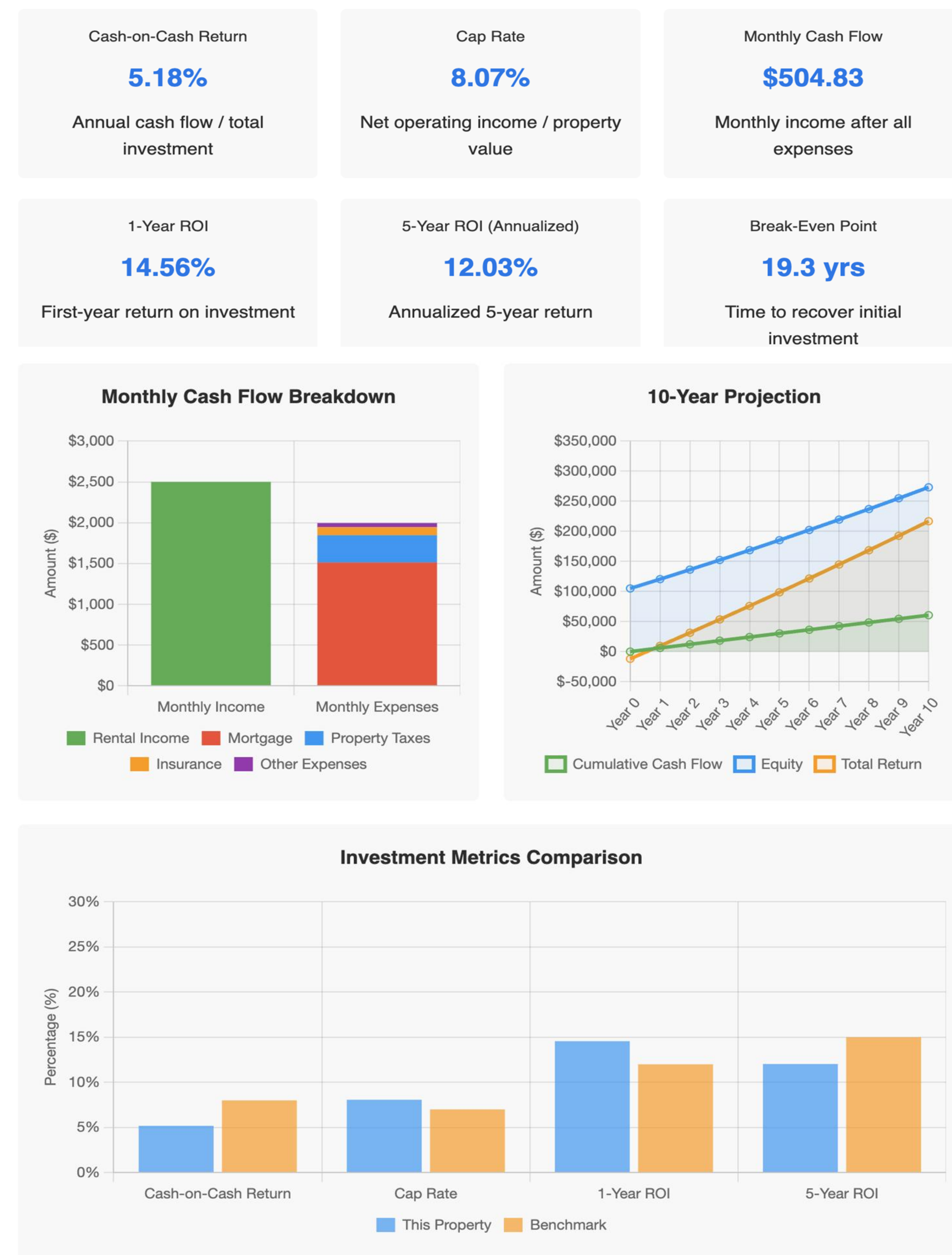


# Novelty

- **Market Insights:** Visualizes historical data, trends, and value indices with interactive charts.
- **Home Comparison Tool:** Color-coded metrics for intuitive property evaluation.
- **ROI Calculator:** Simplifies financial analysis with instant cash flow and appreciation metrics.

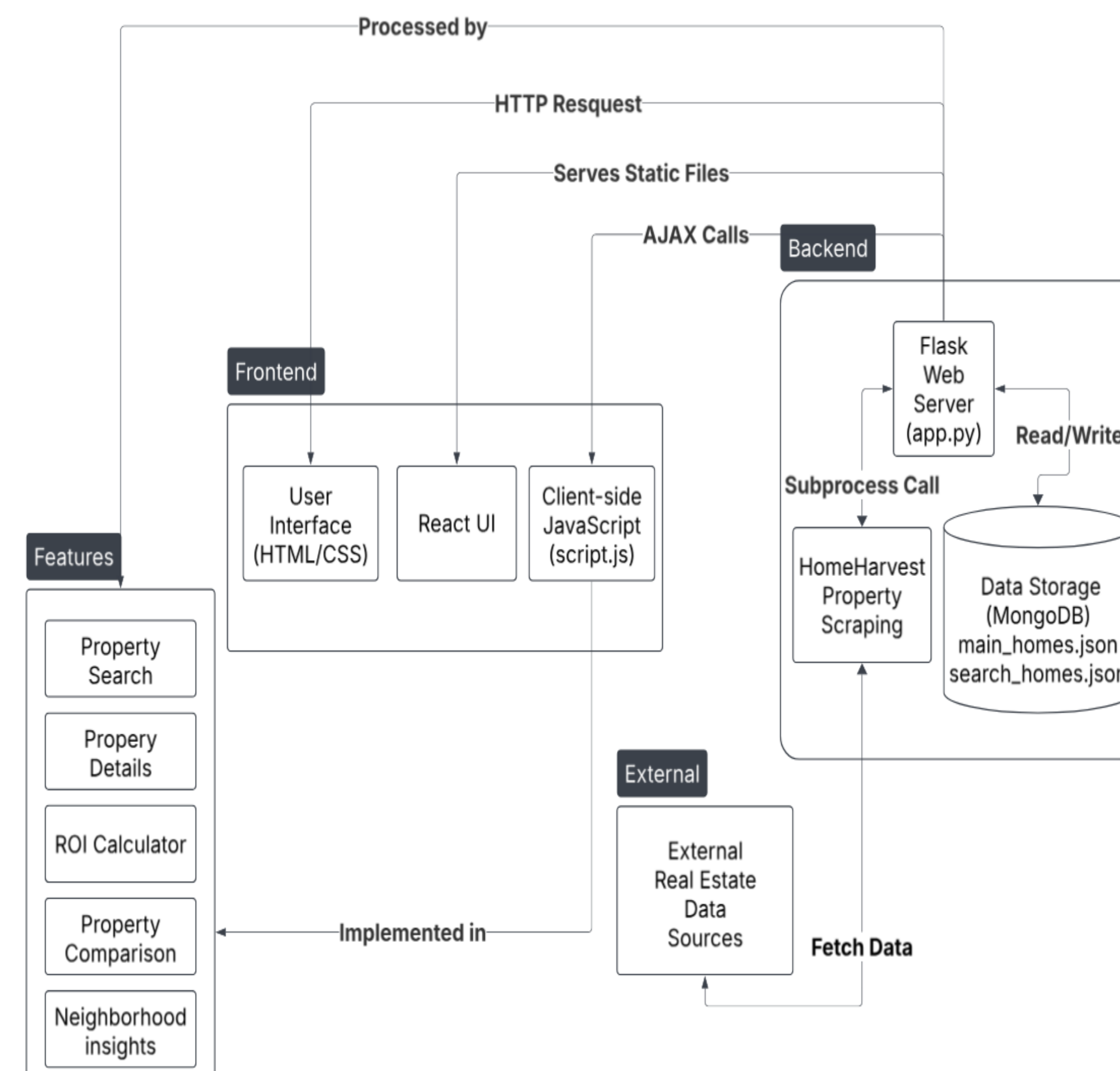
## Investment Analysis Results



## Abstract

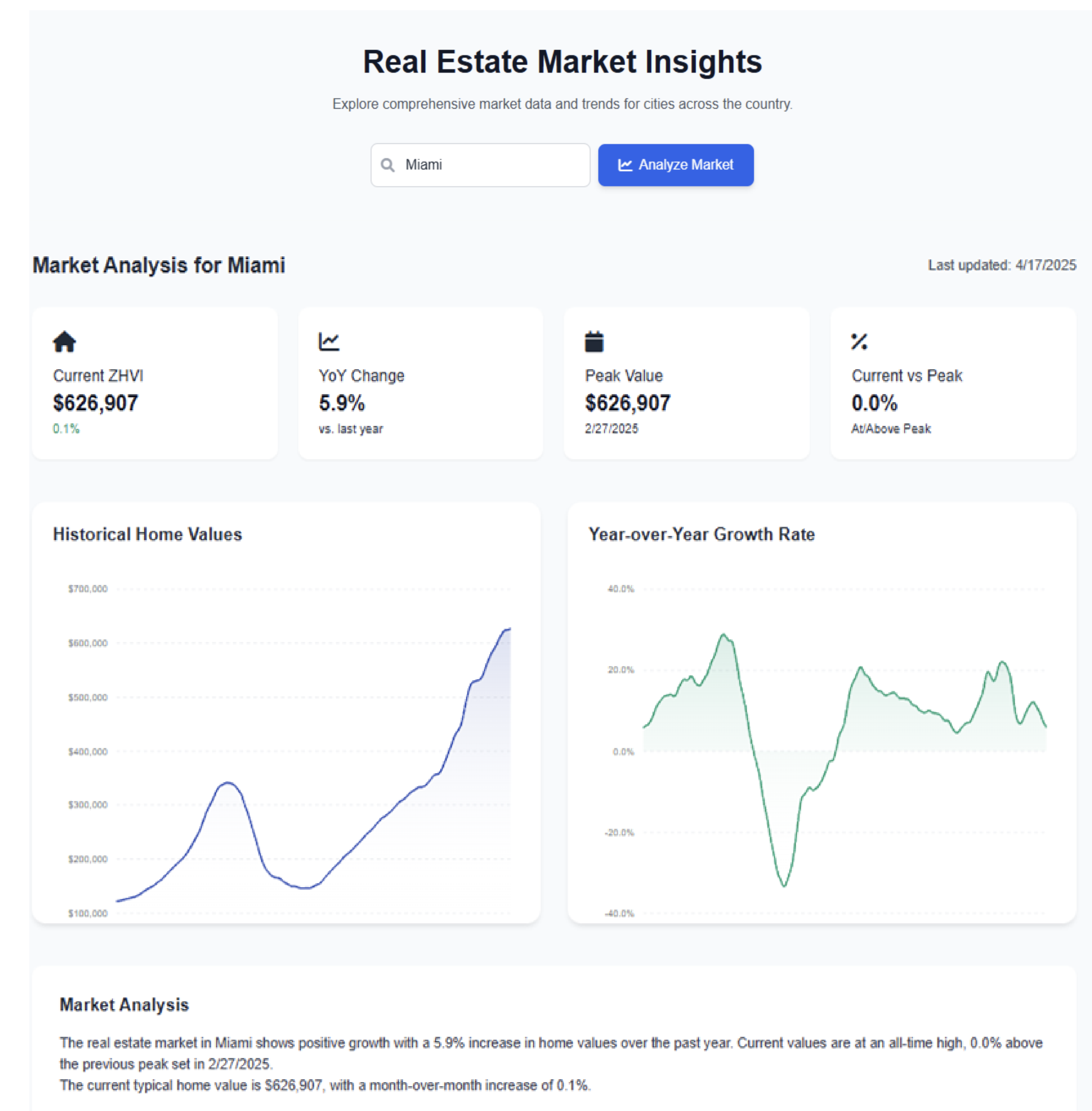
**RealEase** transforms home buying through a web platform that integrates advanced property analysis with intuitive tools. Aggregating listings via various APIs, it offers a Market Insights Dashboard for visualizing trends and value indices, a Home Comparison Tool with color-coded evaluations, an ROI Calculator for financial projections, and robust Home Search functionality. Leveraging machine learning, **RealEase** empowers users with data-driven decisions, making sophisticated real estate analysis accessible to everyone.

## System Architecture



## Methods

- 1.Data Aggregation:** HomeHarvest and API data stored in MongoDB for real-time listings.
- 2.Backend:** Flask for data processing.
- 3.Frontend:** React, JavaScript and Plotly.
- 4.Features:** Comparison tool, ROI calculator, market insights, and location-based search.
- 5.Machine Learning:** XGBoost for price predictions using aggregated data.
- 6.Testing:** Iterative usability tests and design updates for reliability and user experience. This ensures a robust, user-friendly platform.



# Motivation

The real estate market's fragmented data and limited analytical tools challenge buyers making significant financial decisions. **RealEase** addresses this by centralizing comprehensive listings and delivering advanced analysis tools. It enhances transparency with actionable insights into investment potential and lifestyle factors, empowering users to navigate the home-buying process with confidence and clarity.