AffordAbode

Identifying Below-Market Rental Properties for Students

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The Problem

- College students and renters struggle to find affordable housing
- Difficult to identify below-market rentals
- Manual search is time-consuming

The Solution

- Automated data analysis tool:
  - Scrape Redfin listings
  - Analyze prices
  - Identify below-market value properties
  - Accessible web application

System Architecture Overview

- Frontend:
  - Simple web interface
- Backend:
  - Scrapy/Selenium: Collect listings
  - Data Analyzer (Python): Process & analyze data
  - GPT 4.0: Market value trends & deal identification
  - Flask / AWS EC2: Serve results
- Data Storage:
  - CSV/JSON or database

Data Collection

Scrape Redfin listings for:

- Price
- Square footage
- Bedrooms / bathrooms
- Location
- Tools: Scrapy + Selenium.

Market Value Analysis

- Calculate averages by bedroom, bathroom, square footage, and location
- Compare each property’s price vs. market average
- Identify below-market listings using AI Integration

Deployment

- Local: Python + Flask
- Production: AWS EC2.

Future:

  - Database integration.
  - User input for custom searches.

DEMO

Key Benefits

- Saves time for students/renters
- Automates search for affordable housing
- Scalable to multiple areas

Next Steps / Future Work

- Improve scraping robustness
- Expand LLM capabilities
  - Questionnaire