NestFinder: An apartment and sublease aggregator

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***Abstract*— Our team, *NestFinder* (team one), are making a web application that focuses on providing users information regarding available housing for currently enrolled UIUC students looking for an apartment. In addition, NestFinder will provide information about the most recent posts of sublease units within the Champaign-Urbana area. *Abstract*. (*Abstract*)**

I. Introduction (*Heading 1*)

With UIUC being home to over 60,000 students, and ~30,000 new enrolled students yearly. The problem arose that there was no set place for students to find housing, especially when it came to last minute students who would need housing urgently. With so many options, and many sites that offer only specific housing companies, it is hard to compare what is the best choice, or what is truly available. From our personal experiences housing needed to be placed in most cases a year in advance. Because of this we propose NestFinder, a web application where all housing for the University would be available. We also offer to present students with Subleasing opportunities, this can help those that are enrolled late, or transfer mid way through a calendar academic year.

II. Motivation

Every student looking to rent in the Urbana-Champaign area will know the difficulty of finding a perfect apartment. There are dozens of listing sites on top of the sites owned by the leasing companies themselves. When including subleases, this starts to include social media platforms such as Reddit and Facebook. Instead of creating another leasing site, we will aggregate all the leases and subleases in the area, allowing people to visit a single location to find a place to live.

III. Proposed Features

Our main functionality will be achieved through scraping the leasing sites and social media platforms where students look for sublessees. We will then aggregate, filter the information and use generative AI to extract information from social media posts.

Once all the information is processed, we will have a side-bar where apartments can be viewed and a map where the subleases will be plotted on. This will allow users to easily search for apartments and visualize how close to campus locations are.

We will also have an advanced search and comparison feature. This will allow users to compare apartment amenities and prices easily. Advanced search will allow users to specify attributes or distance from campus to get better results.

Users will also be able to log in and save apartments which will allow comparison as well as allow returning users to see which apartments they may have liked.

Optionally, we may include an AI chatbot to accept user apartment specifications and produce apartment recommendations.

IV. Application Functionality

The app would allow the user to navigate through the published apartment listings and aggregated sublease listing. Features like apartment comparison and AI integration would help the user make decisions when choosing between apartments.The apartment information itself will be retrieved through apartment listing sites and social media sites using web scraping or APIs if possible.