Smart Furniture Placement for Better Living Spaces

Tailoring Furniture Placement Design for Every Household

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Summary of Goals

- Enhance indoor living standards by optimizing furniture placement based on activity paths analysis.
- Create unique, safe, and efficient living environments for both adults and children.

Methods

- Use machine learning algorithms to analyze movement paths in different daily activities.
- Use synthetic datasets to determine optimal furniture arrangements
- Utilize Java to implement frontend for User Interface (UI) for better user experience.

Results

- Resulting in better use of space from optimized room layouts.
- Tailoring the placement of furniture according to activity patterns.
- Improving efficiency and ergonomic safety, particularly for children and elderly individuals.
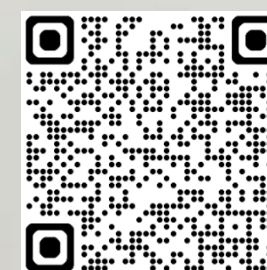
Visualizations
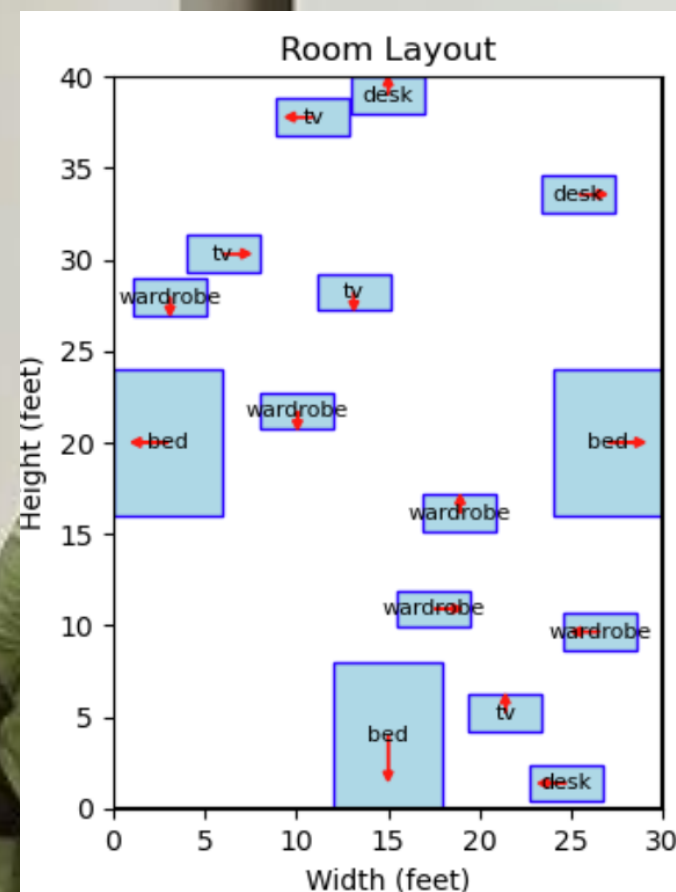
Conclusions

- The implementation of machine learning in optimizing furniture placement has proven to significantly improve the quality of indoor living.
- Leading the trend to better space utilization, enhanced safety, and increased comfort for all household.
- However, access to such technology may be limited to who with advanced smart home capabilities, potentially widening socioeconomic gaps.

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Personal Profile   **GitHub Link**