RPIXplore: RPI's Dorm Discovery Hub

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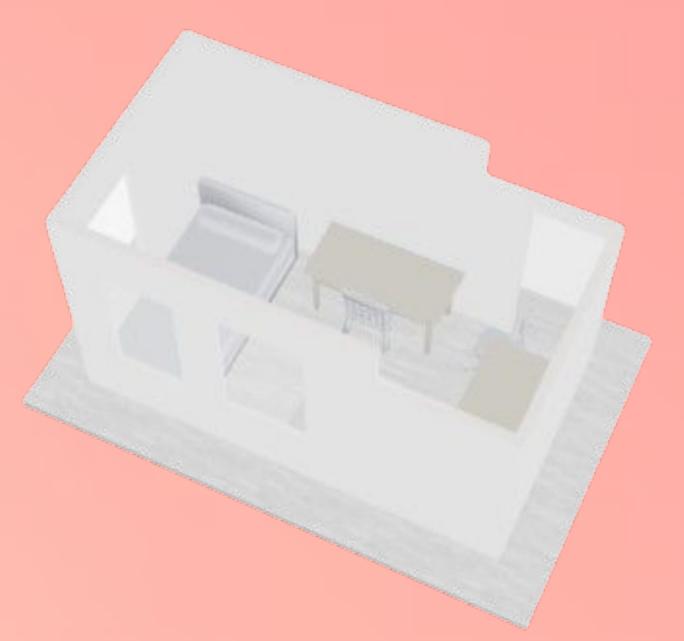
What is RPIXplore?

RPI currently has no dorm website that properly displays all information regarding dorms at RPI. The resources that do exist to learn about dorm life at RPI are lacking. rpirooms.com is an outdated resource and overall isn't well made, and the student living and learning website contains outright wrong information and is a poor resource in terms of content. Using a modern tech stack, RPI Xplore aims to become the number one dorm resource for the entire RPI community, from prospective students to juniors entering their last year. Users will be able to browse all information ever needed on RPIXplore. What does this mean? We will be providing users with 3D LIDR scans of rooms, room-specific information, up-to-date images, and a discussion forum for any questions left unanswered. We hope to become the RPI community's first and last stop for all things dorms by centralizing all data and questions to reduce the need to search between different forums such as Reddit, Facebook, and Discord.

Features

- 3D interactive model of rooms
- Updated information for dorms
- Pages for each dorm, sections for each stack
- Picture carousel for dorm rooms and spaces
- Interactive campus map
- Filterable dorm discovery
- Discussion forum (in development)
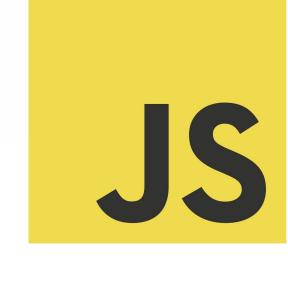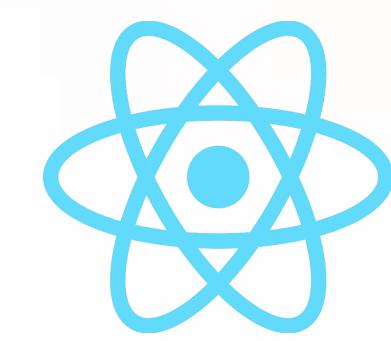- Centralized hub for all dorm and move-in information

Tech Stack

NEXT.js
JS
React
Tailwind CSS
mongoDB
Flowbite
node JS

Conclusions

- Gathering data is hard! An extensive amount of time was taken in creating our database structure and filling it up
- Libraries are a godsend
- Usability testing will be important down the line
- Expanding our team will be helpful for future work
- Use some kind of project management tool to improve workflow
- Continue this project during RCOS for semesters to come!

Future Work

- Add User accounts, for students and parents
- Create discussion forum for users to ask and answer questions
- Collect more data
- Create admin portal for updating information and maintenance of the forum
- Interactive map for individual dorms
- Resources page for information students need easy access to (address, shipping information, etc.)
- Mobile Compatibility
- Launch by end of summer 2024!