

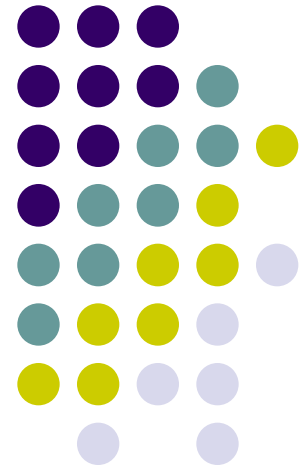
# Ubiquitous and Mobile Computing

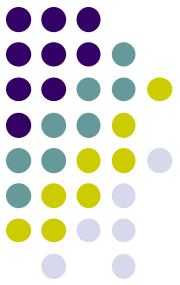
## CS 4518: ExploreGreaterWPI

---

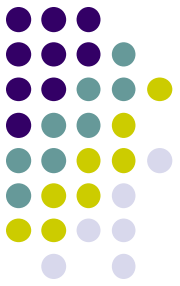
Gina Gonzalez-Roundey  
Obatola Seward-Evans  
Nata Vacheishvili

*Computer Science Dept.  
Worcester Polytechnic Institute (WPI)*

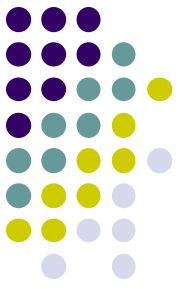




**How much of the WPI area did you know  
Freshman year?**



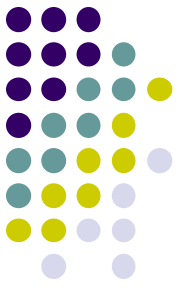
**How many days did it take you to explore off campus?**



# The Problem

Students who spend most of their time on campus...

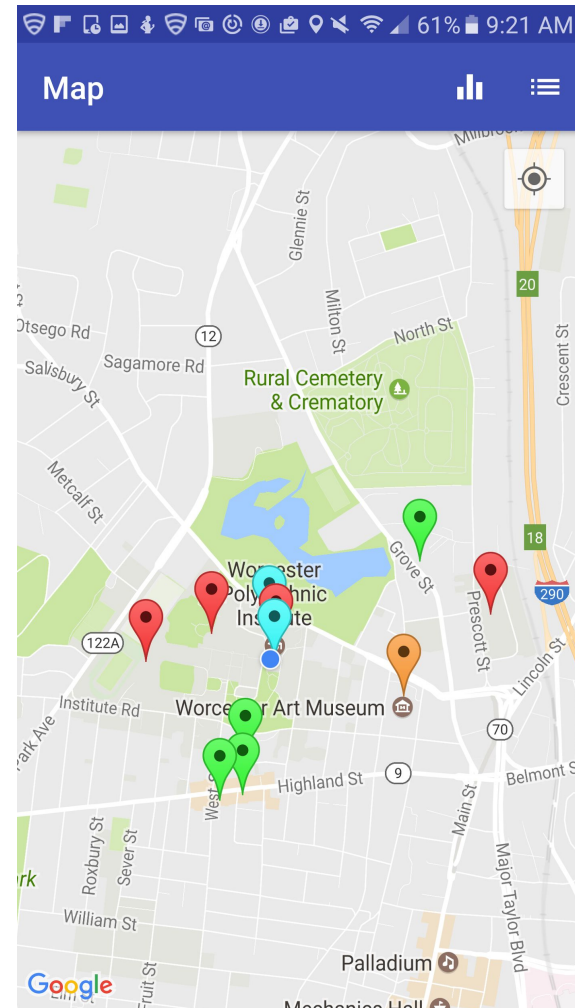
- Do not contribute to city culture.
- Do not have a clear sense of the city their school resides in.
- Do not appreciate their surroundings.



# ExploreGreaterWPI

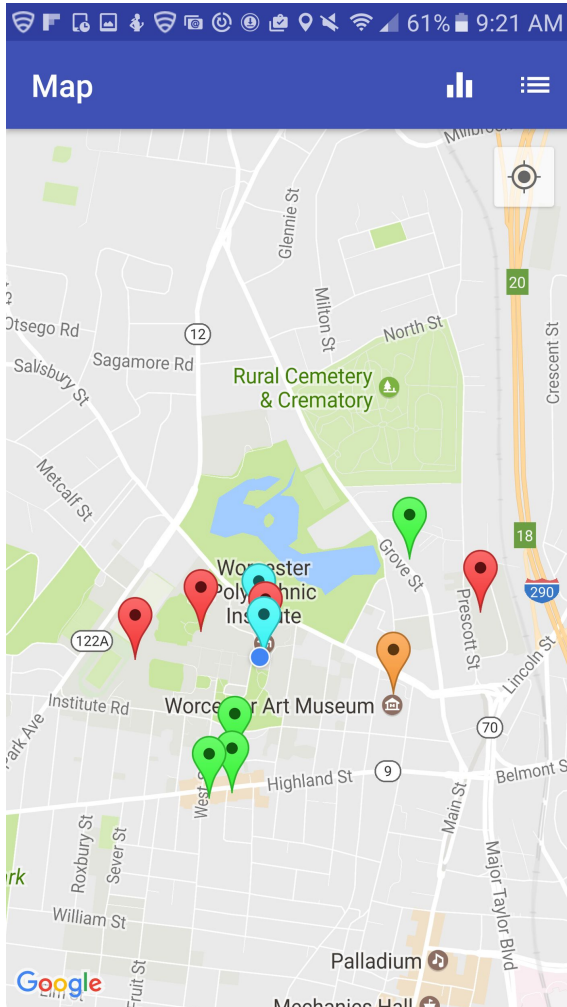
Application will be a way for students to explore the greater WPI area.

- Used by students who want to leave campus but don't know where to go.
- Used by Insight groups.
- Used by freshman to find food and entertainment.
- Used by new professors

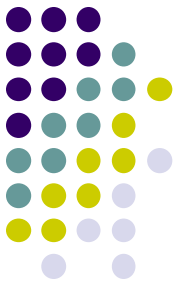




# See All Locations



- Main Activity of Application
- Displays all location and User's current location
- View Markers by location theme
  - WPI Facilities: RED
  - Culture: ORANGE
  - Food: GREEN
  - Visited: CYAN

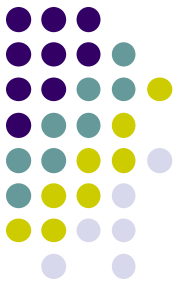


# Summarize Locations

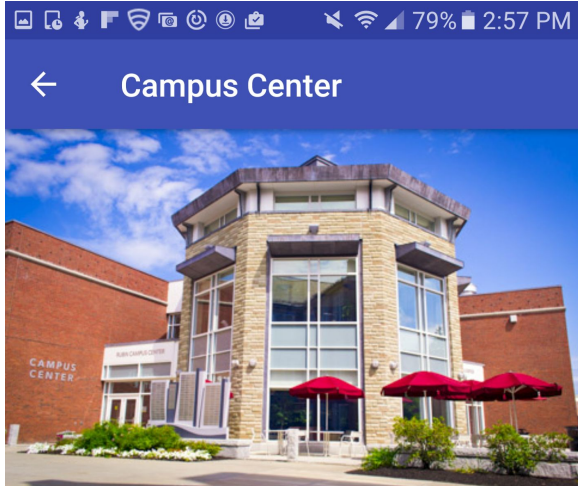
- View Locations by name
- See distance from user to location
- View Locations that have been visited already

The screenshot shows a mobile application interface for 'UrbanAdventure'. The top status bar displays various icons and '79% 2:57 PM'. Below the status bar is a blue header with the app name 'UrbanAdventure', a location pin icon, a bar chart icon, and the text '11 locations unvisited' and 'VISITED?'. The main content is a list of 11 locations, each with a name, category, distance, and a checkbox for visitation status.

| Location Name                      | Category     | Distance | Visited                             |
|------------------------------------|--------------|----------|-------------------------------------|
| Worcester Polytechnic Institute    | WPI Facility | 0.0 mi   | <input type="checkbox"/>            |
| Rec Center                         | WPI Facility | 0.2 mi   | <input type="checkbox"/>            |
| The Bean Counter                   | Food         | 0.2 mi   | <input type="checkbox"/>            |
| Fuller Labs                        | WPI Facility | 0.1 mi   | <input checked="" type="checkbox"/> |
| Worcester Art Museum               | Culture      | 0.2 mi   | <input type="checkbox"/>            |
| Moore Pond                         | Culture      | 8.2 mi   | <input type="checkbox"/>            |
| Gordon Library                     | WPI Facility | 0.0 mi   | <input checked="" type="checkbox"/> |
| Campus Center                      | WPI Facility | 0.1 mi   | <input type="checkbox"/>            |
| Wooberry Frozen Yogurt & Ice Cream | Food         | 0.3 mi   | <input type="checkbox"/>            |
| The Boynton Restaurant             | Food         | 0.2 mi   | <input type="checkbox"/>            |
| The Fix                            | Food         | 0.3 mi   | <input type="checkbox"/>            |
| Gateway Park                       |              |          | <input type="checkbox"/>            |



# Get Location Information



## Campus Center

WPI Facility - 0.1 mi

PHONE

DIRECTIONS

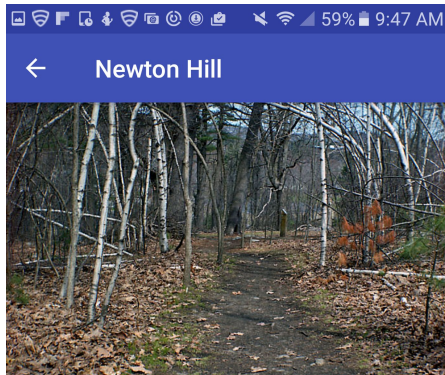
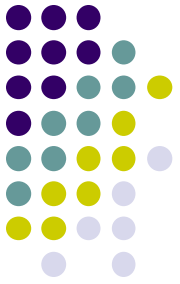
WEBSITE

WPI's Rubin Campus Center is at the cross-roads of the campus. Whether you want to pick up your mail, grab a cup of coffee, or host a meeting, the Rubin Campus Center fits all these needs. It's home to our Bookstore and Food Court, the Office of Student Affairs and Campus Life, as well as a comfortable location to study or visit with friends. Enjoy a concert on the patio, meet for lunch, catch a comedy show on the stage in the Food Court, reserve a room for a meeting, grab a coffee at Dunkin' Donuts, or relax in the Class of 1946 Lounge.

- If Location has phone number allow user call
- User can get directions to location from Google Maps
- User can Visit website relating to the location



# Locations for everybody

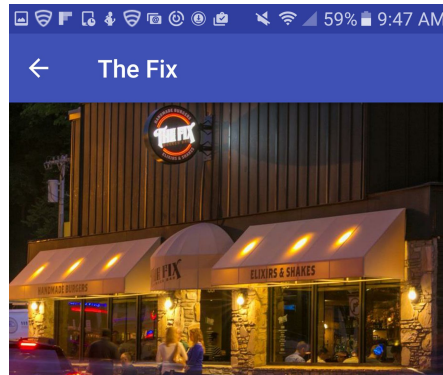


## Newton Hill

Culture - 0.8 mi

- PHONE
- DIRECTIONS
- WEBSITE

The Newton Hill portion of Elm Park (west of Park Avenue) remains minimally landscaped and contains basketball and tennis courts, walking trails and also Doherty Memorial High School, a high school within the Worcester Public Schools system.



## The Fix

Food - 0.3 mi

- PHONE
- DIRECTIONS
- WEBSITE

Modern setting for custom burgers served with craft beers, unique cocktails & spiked milkshakes.

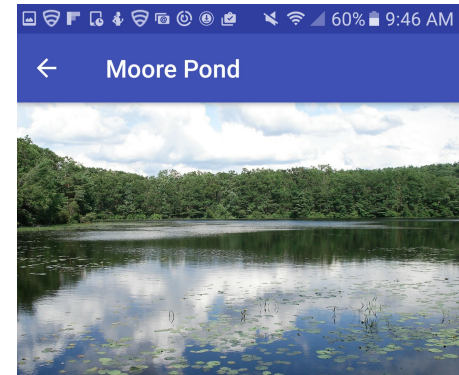


## Worcester Art Museum

Culture - 0.2 mi

- PHONE
- DIRECTIONS
- WEBSITE

The Worcester Art Museum, also known by its acronym WAM, houses over 35,000 works of art dating from antiquity to the present day, representing cultures from all over the world.

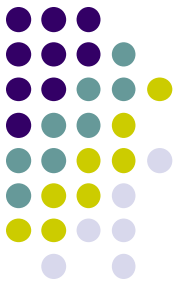


## Moore Pond

Culture - 8.2 mi

- PHONE
- DIRECTIONS
- WEBSITE

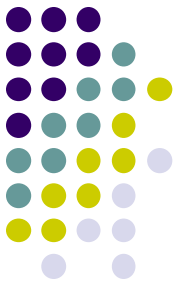
Moore State Park is a 737-acre public recreation area located in the town of Paxton, Massachusetts, portions of which were listed on the National Register of Historic Places as the Moore State Park Historic District in 2004.



# Insight Group Scavenger Hunt

- Incorporate ExploreGreaterWPI with Freshman CA groups
- Each group gets uses one phone with the app and goes to visit all of the locations in the area.





# User Testing

- Interesting Locations
- How far is too far for freshman?
- \$10 radius using Uber?
- 20 minute walk radius?
- Wachusett Mountain?
- How many locations is too many?
- If we add to many nobody would visit all of them.



# What are some places you like to visit in Worcester?



The Bean Counter

NU Cafe

The Castle

Moore Pond

Grime

Bagel Time

Wooberry

Oishi

Antonios Pizza

Boynton Restaurant

Escape the Room

Rumors

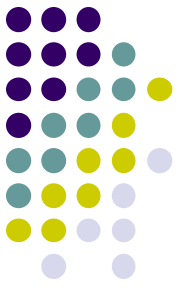
The Fix

Ms Worcester

Rice Violet

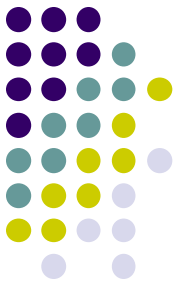
Blackstone Valley

Green Hill Park



## Future Goals

- External database populated with locations (Firebase)
- Put app on iPhone and Android
- Get app/game into CA group activities
- Expand gamification feature
- Campus Leaderboard
- Allow expansion into other campuses
- Create a suite of explore(college name) apps



**Thank you**