



**Capital Region
Villages Collaborative**

**February 4, 2020
Village Valet Ride Share**

Albany Guardian Society has worked with the RPI Design Lab over the past few years on the design of:

- a medication adherence product; and
- a balance application to improve seniors lives

My Mobility Test

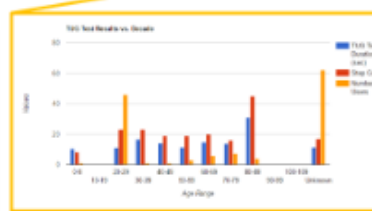
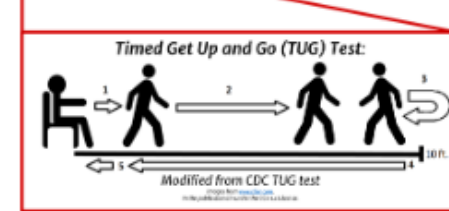
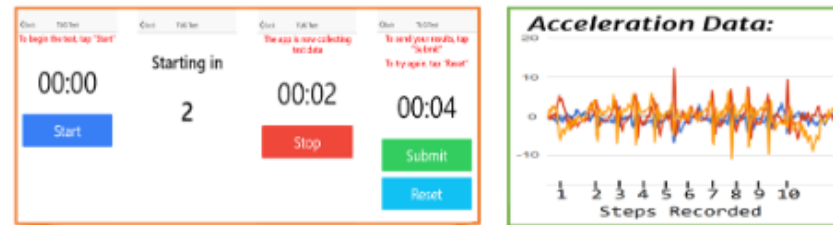


Spring 2016 Members: Nicholas Fay (CSE/CS), Alec Vogel (BME/ME), Nicholas Grippo (CSE), Zachary Shute (CSE), Dan Shanley (CSE), Trevor Corrao (IME), Carson Hynes(CSE), Ryan Delaney (CSE/CS)

ALBANY GUARDIAN SOCIETY
ALBANY NEW YORK

Background	Project History	Purpose	Semester Objectives
<ul style="list-style-type: none"> Over 1/3 of all people over 65 fall each year Falling is the leading cause of death among seniors 30 billion dollars spent per year in medical expenses resulting from falls 25% of seniors have a smartphone 	<ul style="list-style-type: none"> Android and web application developed and functioning, iOS application not fully implemented Step counting algorithm implemented Security issues identified Timed Up and Go Test successfully used for analysis 	<ul style="list-style-type: none"> Provide an application that collects accelerometer data while taking a TUG test Provide a website to access the data collected by the application 	<ul style="list-style-type: none"> Deploy website to AGS server Create cross-platform application with Ionic Update MyMobilityTest.com to fix bugs & failures Strengthen website to ensure compliance with HIPAA Title II Collect experimental data from senior citizens

Technologies



Technical Accomplishments

Testing/Marketing

- Performed tests on senior citizens before IRB expiration
- Created a marketing video to showcase the My Mobility Test platform
- Collected UI feedback from senior citizens

Apps

- Created a hybrid app for iOS using Ionic
- Implemented all Android functionality
- Superseded the existing Android application

Server

- Transferred the Django website to an external server
- Performed security testing using OWASP ZAP and patched security issues
- Purchased and set up a valid SSL certificate

Website

- Fixed all outstanding security issues
- Properly implemented SSL and HTTPS
- Updated content on out of date pages
- Fixed UI bugs
- Added new functionality such as filtering and password reset pages



Project Scope: Albany Guardian Society engaged the RPI Design Lab to develop a program to facilitate volunteer Ride Sharing for Villages:

- Improve the seniors quality of life and help them overcome everyday challenges.
- Design a ride sharing and dog sitting request website.
- Unique for the Village Movement.

Rensselaer Polytechnic Institute • School of Engineering

APPLY VISIT GIVE

The O.T. Swanson Multidisciplinary Design Lab

Home About People Projects Sponsorship Contact

Home / About / What is the Design Lab?

What is the Design Lab?

The Design Lab experience provides senior engineering students with actual design challenges that come from industry, service organizations, or entrepreneurial ventures. Each semester, student teams work with mentors from sponsor organizations. The students share ideas, formulate the problem or opportunity, conceptualize designs, build prototypes, and test their solutions.

- Sponsors provide the problem, the mentors, and the funding.
- Faculty and staff provide day-to-day guidance, design process instruction, and technical consultation.
- The Design Lab provides a meeting space, support staff, and technical support services.
- Students provide the enthusiasm.



The team was allowed autonomy in decision-making

- Capstone Feedback

The O.T. Swanson Multidisciplinary Design Laboratory
Rensselaer Polytechnic Institute, 110 8th Street - JEC 3232, Troy, NY 12180-3590
Kathryn A. Dannemann, Ph.D., Director
(518) 276-8293 (voice) | (518) 276-4860 (fax) | DesignLabDirector@rpi.edu

THE DESIGN LAB at Rensselaer

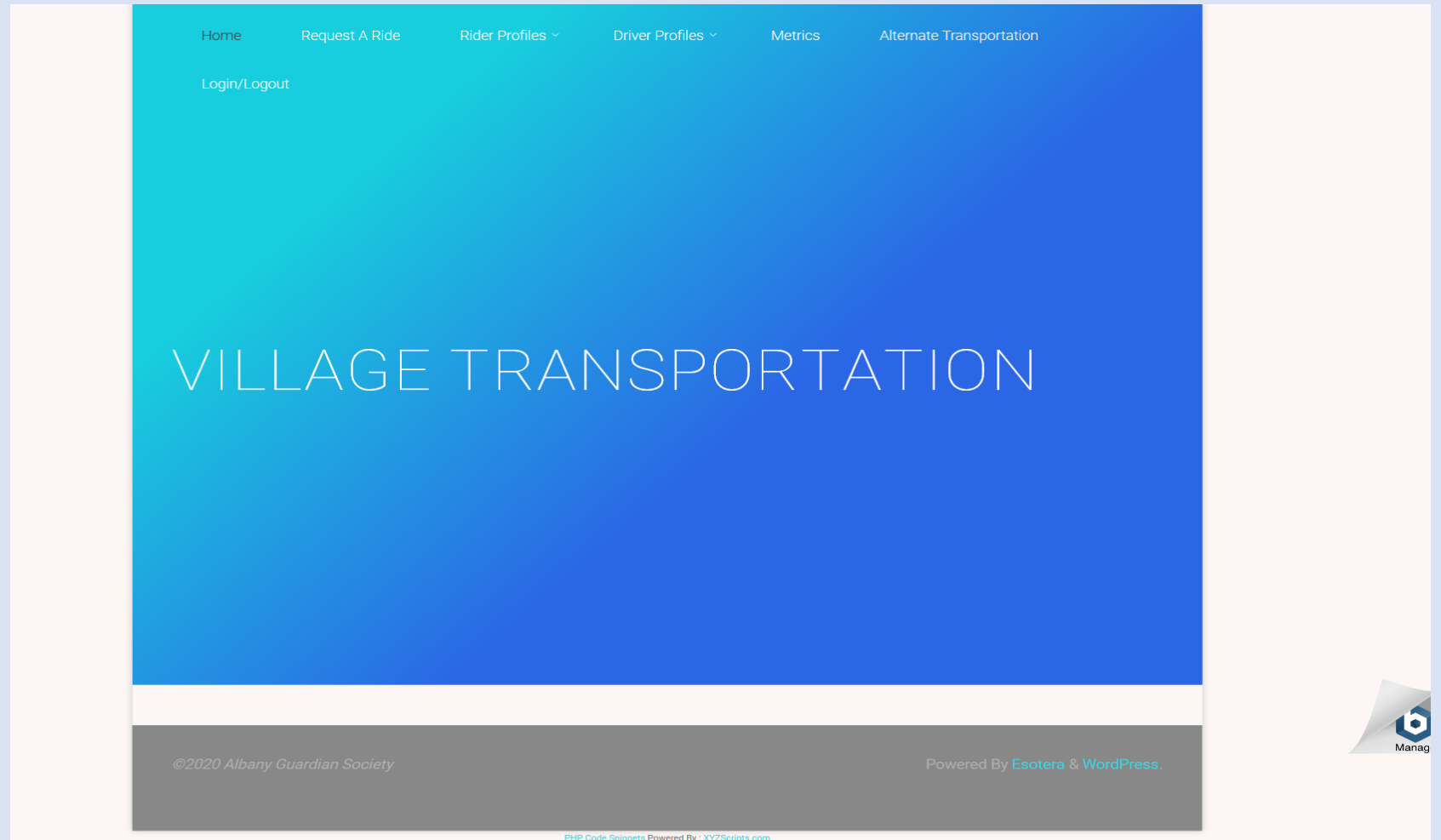
RPI Design Lab Transportation Project Phase I & II Presentation



Ride sharing makes for
a more intimate
community experience!

Village Transportation Demonstration

Village Transportation Website developed to be used by a Village “Operator” who manages the process of connecting a rider with a volunteer driver.



Website Features

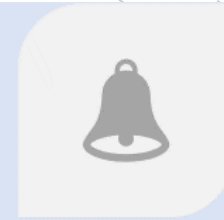
- Rider profiles
- Driver profiles
- Villages
- Communication
- Driver matching
- Dynamic metrics



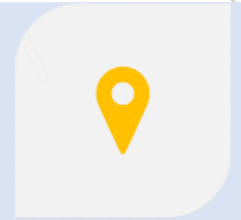
Design Components included on site to enable service functionality



VEHICLE DESCRIPTIONS



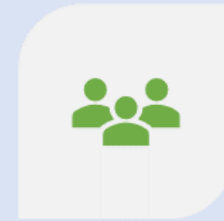
NOTIFICATIONS



DISPLAY CURRENT LOCATION AND ROUTE DESTINATION



SCHEDULED RIDES



GROUP RIDE SHARES



RATING FEATURE



EXPANSION OF APP TO MULTIPLE SERVICES



INTEGRATING THE SERVICE APP WITH THE SOCIAL NETWORKING APP

2020 Integrations

Driver Matching & Google Maps Integration



Phase II Goals

- Improve operator features
- Metrics for:
 - Driver availability
 - Rider accommodations
 - Number of passengers
- Google Maps
 - Pickup/drop-off locations
 - Ride time calculations
 - Trip mapping/visualization
- End goals
 - Remove need for operator
 - Integrate w/other transportation services



Communication

Connecting the rider with their driver

- Automation of ride confirmation
 - Driver and Rider notifications
 - Email
- Explore
 - Text messages
 - Pre-recorded phone messaging

Goal efficient communications



Integration

Village Transportation Website will integrate with other local transportation supports & services for times when a volunteer driver is not available to assist the rider.

2020

Transportation Options for Senior Adults *in the Capital Region*



Albany County | Rensselaer County | Saratoga County | Schenectady County

AGS

Published by:

Albany Guardian Society

14 Corporate Woods Blvd. | Albany, NY 12211
518-434-2140 | www.albanyguardiansociety.org

Questions

