



Visit Alton: A Mobile Application Design

Fall 2018 • Computer Management Information Systems 470 • Structured Systems Design
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SIUE

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SIUE Successful Communities Collaborative Year 2018-2019

In Partnership with

City of Alton, Illinois

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Acknowledgements

Thank you to [Mayor Brant Walker](#) for your enthusiastic support of SIUE Successful Communities Collaborative (SSCC) and the students involved in this project.

Thank you to [Mr. Greg Caffey](#), Director of Planning and Development for the City of Alton, [Mr. Brett Stawar](#), President and CEO of [Great Rivers and Routes](#) Tourism Bureau, and [Ms. Trish Holmes](#), Director of Member Services of [Riverbend Growth Association](#) for your time and contributions throughout the design process of the Visit Alton mobile application. Your efforts are greatly appreciated.

Thank you to SIUE School of Business Dean [Dr. Timothy Schoenecker](#), SIUE Computer Management and Information Systems (CMIS) department chair [Anne Powell](#), and [Professor Laurie Giddens](#) for your guidance and contributions throughout this collaboration. Also, thank you to the team members from the SIUE CMIS department Brian Lager, Andrew Masiero, Oliver Schultz, and Andrew Smith.

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About SSCC

SIUE Successful Communities Collaborative (SSCC) is a cross-disciplinary program that supports partnerships between the University and communities in Illinois to advance local resiliency and sustainability based on community-identified environmental, social, and economic issues and needs. Our mission is to connect communities with the students and faculty of SIUE.

SSCC offers communities innovative strategies to move high-priority sustainability goals forward. Communities often face limited resources to explore sustainability and quality of life questions. SSCC seeks to reduce those obstacles by linking existing graduate and undergraduate courses at SIUE to explore innovative solutions to community-identified projects. SSCC staff work closely with faculty to incorporate community projects into their courses and connect students with community partners. Staff and stakeholders from the community work closely with SIUE faculty and students to provide local knowledge and deeper understanding of the issues, guaranteeing projects are not only innovative, but also suitable for the community.

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<https://www.siu.edu/sscc>

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This report represents original student work and recommendations prepared by students in the School of Business, in collaboration with SSCC. Text and images contained in this report may not be used without permission from the City of Alton or SSCC.

About the City of Alton

The [City of Alton](#) was founded in 1837 and is located on the Mississippi River in Madison County, Illinois about 25 miles north of St. Louis, Missouri. It is part of the Metro-East region of the Greater St. Louis metropolitan area.

Home to about 28,000 residents, Alton is a great place to live, work and raise a family. Alton's residents benefit from a cost of living below the national average and the protection of the Alton Police and Fire Departments. The [Alton School District](#) and several private and parochial schools provide a wonderful education to children in the area. [Southern Illinois University Edwardsville](#) makes higher education accessible to residents of Alton. Large employers include the Alton School District, [Alton Memorial Hospital](#), [Alton Steel, Inc.](#), [American Water Company](#), [Argosy Casino](#), [Global Brass and Copper, Inc.](#), [Olin Corporation](#), [Riverbend Head Start & Community Services](#), and [Saint Anthony's Health Center](#). A variety of locally owned small businesses are also located in Alton such as [The Second Reading Book Store](#), [Duke Bakery](#), [The Gift Box](#), [Decaro's](#), [Baxter's Party Supply](#), and [Sherry's Snacks](#).

Alton is the hometown of Jazz musician, [Miles Davis](#), and [Robert Wadlow](#), the tallest known person in history. Alton is also known for the [Great River Road](#) along the Mississippi River and the vast number of [Bald Eagle](#) sightings in the winter. Alton also has a rich history from the Civil War Era including a [war prison](#), and many houses that were a part of [the Underground Railroad](#).

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Executive Summary

The objective of the collaboration between Professor Laurie Giddens' Structured Systems Design course (CMIS 470) and the City of Alton was to develop a mobile application to boost tourism and economic development. This project is within the purview of the Planning and Development department and builds on momentum gained following winning the Hulu Small Business Revolution competition and the #OurAlton social media campaign. The CMIS 470 team was tasked only with developing the system requirements of the application, with which a development team would produce a working application.

After reviewing Alton's current applications and the inefficiency of maintaining them, the team concluded that the best option was to combine the four existing applications into one, rather than starting over with entirely new content. Alton's previously developed applications are [Eagle Watcher](#), [Haunted Alton](#), [Autumn Road Trips](#), and [Lincoln Legacy Trail](#). The Visit Alton mobile app will also include new features such as capturing location and phone data. The application will utilize data pulled from Alton's Content Management System (CMS) which houses their application data. In this context, the CMS is used to read and write data between the mobile application and the database. Moving forward, the system requirements developed by the CMIS 470 team will be used by students enrolled in CE425/499 to develop a functioning mobile application.

Visit Alton Mobile Application Design

The City of Alton tasked Professor Laurie Giddens' Structured Systems Design course (CMIS 470) with creating a mobile application for the City. A team of five students were assigned to the project – Brian Lager, Parker Littlejohn, Andrew Masiero, Oliver Schultz, and Andrew Smith. Because of the limited time-frame to complete the work, only the system requirements were to be developed by this team, providing the “blueprint” for the application.

The City of Alton had issues updating their existing applications because there were four different applications, which meant the City had to make updates four different times, and from four different places in the content management system. In order to improve this inefficient process, the decision was made to combine all four existing applications into one that could act as a hub for all the information and features that were previously spread out over the four applications. Combining these existing applications will make the maintenance and updating processes much easier and more efficient. The new Visit Alton mobile application will include additional features not included in the existing applications, such as the capability of gathering location data to be used to determine length of stay and sites visited, and phone data (area code) to determine visitor origins.

Specific Requirements

The team created a prototype for the Visit Alton mobile application using a website called proto.io, which is shown in the screenshots throughout the remainder of the report. When the application is fully developed, it will be linked to Alton's CMS so that data can be entered. Note that the titles and sections of the final application will be similar to the prototype, but the specific information that is included in the prototype is merely sample information used to show what the application will look like once Alton has added their own information.

The Visit Alton mobile application will have five main screens, along with several sub-screens on many of the pages. The five main screens consist of the Home page, and a page for each of Alton's previous applications: Eagle Watcher, Autumn Road Trips (renamed to Scenic Routes), Legacy Trail, and Haunted Alton. Throughout the entire application, a toolbar will be shown on the bottom that allows the user to select one of the five main screens.

Home Page

The Home page displays Twitter, Facebook, Instagram, and YouTube icons, as well as sections for About Alton, Feedback, Trending, Events, and Deals. The About Alton and Feedback sections are accessed through a menu that slides out when the user taps the three lines at the top left of the screen. The bottom half of the screen is a scrollable section that includes Trending, Events, and Deals.



Image 1: Screenshot of Home page from prototype built with proto.io

Eagle Watcher

The Eagle Watcher page shows a map of hotspots for watching eagles in Alton. This hotspot feature was recreated, and is shown below. Hotspots can be toggled off and on by tapping them in the list at the bottom half of the screen. The “Add a sighting” button will prompt the user to allow access to the location of the device. Once access is allowed, a pin will be dropped on the map at the location. The arrows at the bottom next to “Hotspot” will toggle the bottom half of the screen to a list of sightings that other users have pinned.

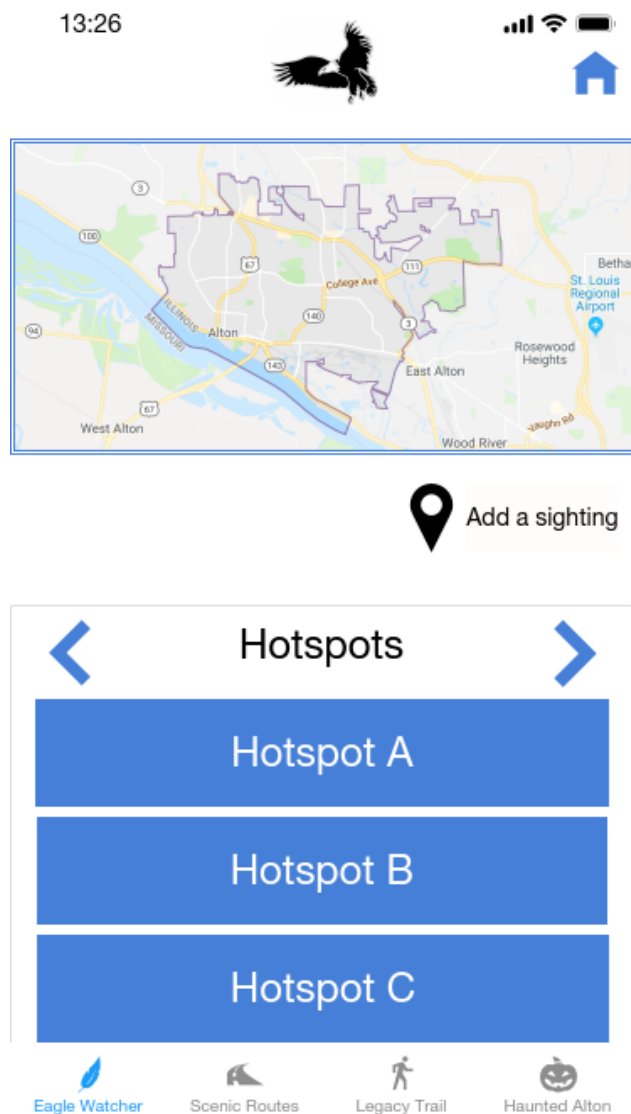


Image 2: Screenshot of the Eagle Watcher page from the prototype built with proto.io.

Scenic Routes

The Scenic Routes page displays a map of Alton and has a scrollable list of different scenic routes that can be taken around Alton. When scrolling to a different route, that route will be highlighted on the map.

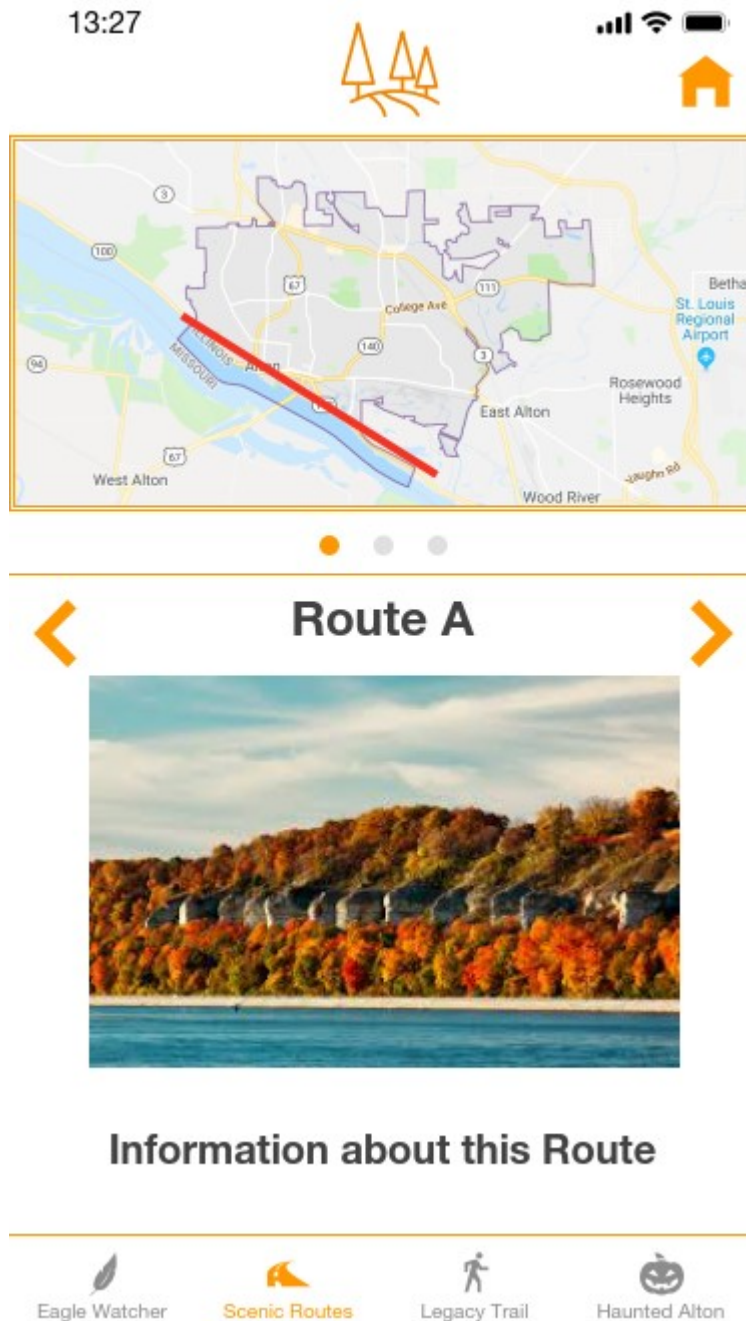


Image 3: Screenshot of the Scenic Routes page from the prototype built with proto.io.

Legacy Trail

The Legacy Trail page shows historically significant sites around Alton. This page again shows a map of Alton, and a scrollable list of different sites. When a site is tapped from the list, a pin is highlighted on the map to show the user where that site is located.

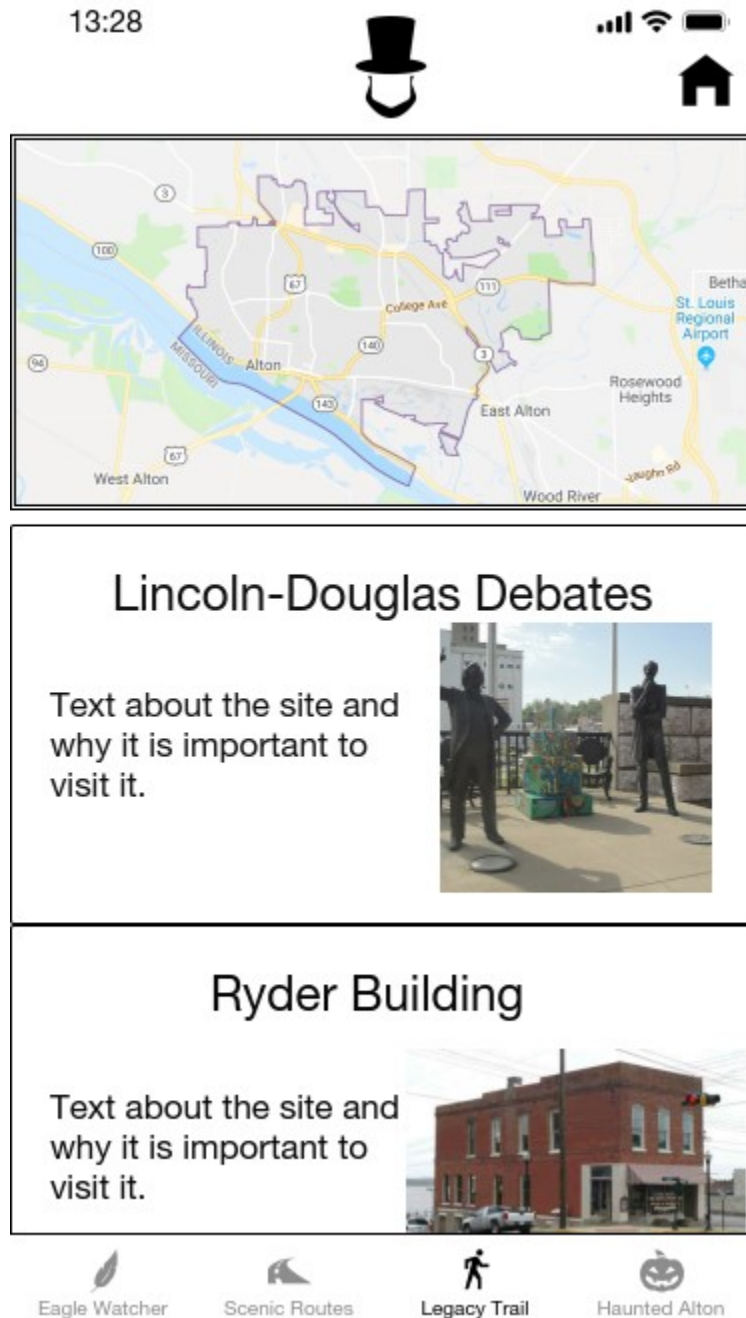


Image 4: Screenshot of the Legacy page from the prototype built with proto.io.

Haunted Alton

The Haunted Alton page has four options on the main screen: Haunted Sites, Tours, Gallery, and About. The Haunted Sites sub-page operates in the same way the Legacy Trail page operates, except instead of historical sites this page displays haunted sites. The Tours sub-page shows a list of available haunted tours that can be taken through Alton, as well as a link to the website containing additional booking and contact information. The Gallery sub-page is a photo gallery of the different haunted sites around Alton, and the About sub-page is a brief description of Alton's haunted history.

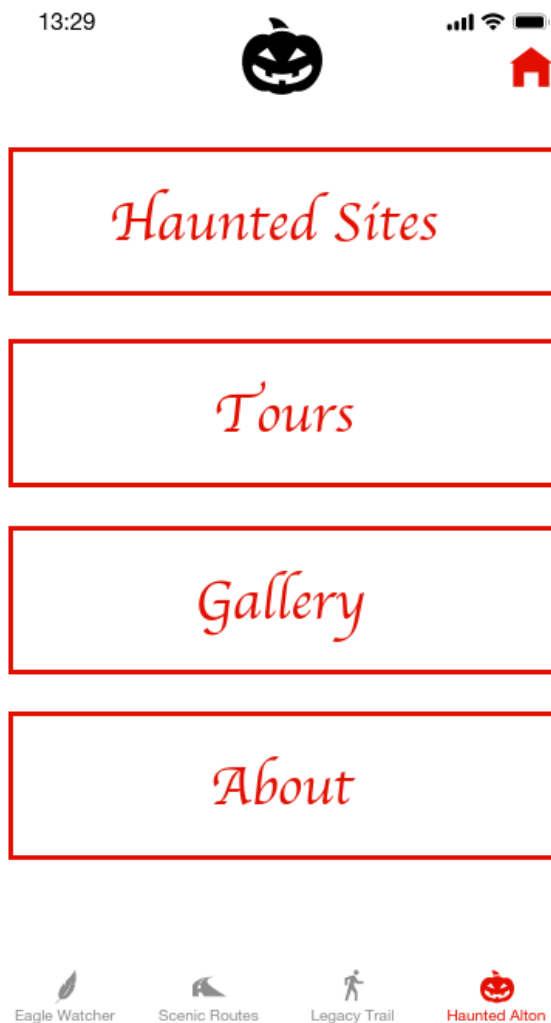


Image 5: Screenshot of the Haunted Alton page from the prototype built with proto.io.

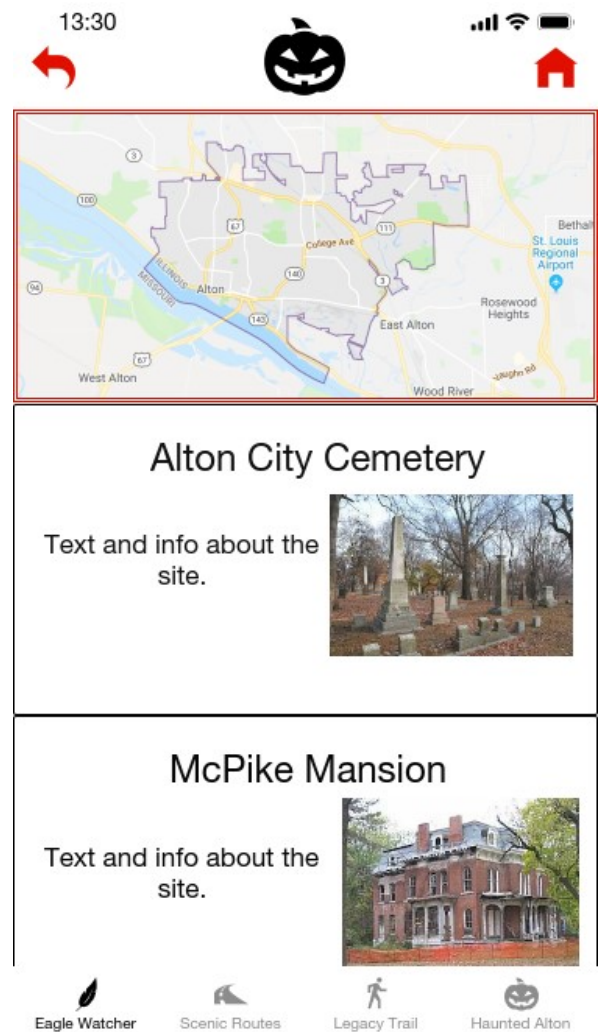


Image 6: Screenshot of the Haunted Sites section of the Haunted Alton page from the prototype built with proto.io.

Next Steps

The original plan for the application was for the team to design it and pass off the documents to a CMIS mobile application development class during the spring semester. This changed because Alton's content management software is proprietary, meaning that connecting an application to it requires permission from the software's owners, which was not granted. This was not an issue for Alton's previous applications, because they were developed by the same company that owns the content management system.

This leaves Alton with a few options. The first option is that they can go to the original developers and hire them to develop an app using our designs. The next option is that they can search for a new content management system – one that allows for third party developers (such as an SIUE mobile development class) to connect to it. If they pursued this option, a future mobile application development class from SIUE could develop the final application using these designs. A third option, and the one that is being pursued is that of a two -semester course picking up the project, who will develop a web-based application that utilizes Google application programming interfaces for the calendar and map features, an application programming interface for weather and [Mongo DB](#).