



LANE S. URTEL

Software Engineer

Mr. Urtel has over ten years of experience developing web-applications, Geographic Information Systems (GIS) web-applications, and administering GIS infrastructure and databases. His specialties include integrating GIS and other non-spatial data to enable spatial analyses on different data sets, user friendly GIS web application development, and administration of GIS software and web-services. Mr. Urtel's recent development has focused on creating web-components and web-applications focusing on data management and display, as well as the overall user experience.

Project Experience:

Developed a custom pipeline management GIS editing application. GIS resource and application security was integrated to define GIS tool and editing permissions, as well as application project and module access. The GIS application is available for multiple discrete projects, retaining secure access for each individual project/role. In addition to building and designing the GIS application, Mr. Urtel generated the user interface for other aspects of the application, including document and user/role management.

Created a custom workflow management web-application interface that allows users to build custom workflows, save templates for future workflow creation, task assignment, and task management. Built a routing mechanism to allow direct, secure access to individual workflows from outside the application via links in system email notifications. Created a dashboard for displaying a users' tasks and workflows highlighting items that require action.

Built and designed a purchase order management web-application interface using new data-binding technology for dynamically binding data to the page for faster, more concise development that enables easier application maintenance. Helped implement a configuration layer to allow for client-specific information entry and display from a single source, improving application maintenance.

Incorporated a system notification mechanism web-applications using various technologies using social media streams. User are notified of new system updates from the social network feed upon web-application logon.

Constructed a web-based shipping manifest management application with built in reporting and administration tools. The application is based on the ability to enter data into dynamic, standard forms, and store the data for retrieval and reporting needs. Manifest information was also connected to an invoicing system for managing invoices related to shipping and disposal costs. A custom reporting component was also built to report shipping and invoice information. The application allows for uploading hard-copies of either a manifest form or invoice for record keeping as well.

Built a dynamic, data driven mapping framework for project specific GIS applications. This framework allows for custom tools to be developed and implemented as needed within any given project. The integration of the GIS

Education

MS, Resource Analysis,
St. Mary's University of
Minnesota – Winona MN

BS, Biology, Winona
State University –
Winona MN

LANE S. URTEL

framework has streamlined the maintenance of web-based GIS applications and tools.

Provided development expertise to build a new property interactive map application for Hennepin County, MN. The solution integrated the county tax and assessment databases with the parcel fabric to display tax/assessment information, as well as survey documents for every parcel in the county. The links to the survey documents decreased calls from the public to the county surveyor's office significantly.

Designed and developed a standard application framework for GIS web – applications for the Hennepin County GIS office. The flexibility of the framework allowed developers to quickly create new applications that look, feel, and work the same for various users, yet allow for customization based on customer requirements.

Developed an interactive park finder based on the pre-defined application framework for Hennepin County, MN. Mr. Urtel aided in the creation of a new data model to support parks data that was used to support the web-application and general GIS users as a whole.

Maintained and upgraded an Election Results interactive mapping site for Hennepin County, MN. The new site, simplified, yet enhanced the user experience on the site. The application required custom web-services to display results for all possible races in every precinct, track precincts that have reported in near real time on election night, and display voter turnout statistics when available.

Designed and developed a custom county road construction viewer and data management web-applications. The management site allowed transportation department staff to update project data, which included creating alerts for users to changing conditions at the project site. Transportation staff also had the ability to customize the projects displayed on the map as construction projects are completed.

Managed a team building a property assessment and comparison tool for county assessor staff. The tools allowed for visual analysis of properties by field staff and allowed appraisers to find comparable sales of properties based on dynamic criteria. After acceptable properties are found a report could be exported for statistical comparisons.

Maintained a field application for county appraisers for data collection in the field. Application allowed appraisers to capture data in the field, and push data up to a central data repository for approval and insertion into the primary data store. The field application, used by 20+ field staff annually, allows staff to schedule field work using the built in map for identifying properties to be visited, and those that have already been visited for the assessment cycle.

Managed, and developed an interactive map into an American Recovery and Reinvestment Act (ARRA) site administered by Hennepin County, MN. Oversaw the design of a custom database to support the mapping functions to

LANE S. URTEL

the specifications of the clients. Coordinated with web administrators to ensure the map integration was seamless to the user.

Administered esri's ArcGIS for Server and ArcIMS software servers to support internal and external customers. Maintained 3 primary map tile caches across the enterprise for fast/dynamic basemapping layers; which included building a process to find changes in data required new cache tiles.

Provided application development and Database management for a Web-application used to define High Consequence Areas along oil/gas pipelines across the US. Developed a custom quality assurance module used to verify data completeness and accuracy before committing to the central database. Designed and managed the database that supported the editing and validation tools of new features.

Designed and developed a custom web-application for a small municipality to display basic parcel information to the public. Mr. Urtel also developed a secure version of the application for internal staff that included more sensitive data that was not publicly available. Mr. Urtel was responsible for administering the mapping software for the municipality as well as maintaining the application.

Designed, built, and maintained an interactive web-map for an oil and gas pipeline company displaying pipe segments and Pipeline Open Data Standards (PODS) information. The application integrated a custom tool able to find the "mile-marker" along the pipe based on location clicked. Users were also able to create map printouts from in a variety of sizes.

Developed and maintained website for Upper Mississippi River recreational boating using ArcGIS Server to allow all users of the Mississippi River to have access to GIS data, boat survey data, reports and custom query capabilities.

Professional Publications/ Presentations:

"An introduction to Web-based editing using ArcGIS Server". GIS and LIS Consortium, 15th Annual Conference and Workshops, St. Cloud, Minnesota, October 2005

Continuing Education/Specialized Training:

esri ArcGIS 10.1 for Server Bootcamp – March 2013
