

CS Masters' Thesis Defense

Title: *Dynamic Projection of Data on Maps Based on Time-lines : Client Side*
Speaker: Swagath Manda
Date: Tuesday, October 25, 2011
Time: 1:30 p.m.
Location: GMCS 418
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Abstract:

One of the main uses of GIS is to help explain or understand and analyze events and trends on a particular region or set of geo-spatial data. However in many cases the data is time sensitive and the data in the system needs to change dynamically in accordance with time and developing such systems require considerable effort. Google Maps has in many ways revolutionized, simplified GIS and made it available to the masses , however powerful the service may be, it lacks a simple method to enable users to create and publish GeoSpatial data on their maps and more so when it comes to creating dynamic time sensitive data. Motivation for this thesis is to develop an intuitive GIS web framework, that enables the users to create and publish GIS using the free and readily available solution provided by Google Maps.

This website is developed keeping in mind teachers and students, and common users in such a way that it can be used by both experts and naïve users to create powerful Geographical Information Systems with minimal effort and time. The framework enables the creation of TimeLine Map, which has a time scale ruler and a Google map integrated. The data is projected on the map dynamically based on the timescale. The users can slide through the time ruler to see the corresponding data being projected on the map dynamically. The advanced users can tweak the solutions provided further to customize the TimeMap, give filters, color coded placemark, enable touch events as demonstrated with the examples – British Empire, US States Acquisition and US Presidents TimeLine Map.