Hi Jingchao,

Ayan and I have discussed it and think the following are a reasonable set of deliverables for a MAS-GIS capstone:

1. Set up a development environment and get the application working on your workstation. Ayan can get you the original script and let you know what version of PHP and Postgres to use.
2. Update the current CNG and H2 stations with the newest set of data and then update the distances with Mike Palmer's Script.
3. Change the distcalc.py file to use ESRI's AGOL geocoded for updating distances. Since ASU already has a license for this we don't have to spend extra cash and this will greatly increase the speed of the distance calculations as we can now batch geocode.
4. Alter the web tool to also use the AGOL geocoder to make sure calculated network distances match up to the geocoder used for the start and end addresses, the user types in.
5. Research other routing services that could be used for #3 and #4, such as neo4j and openroute service. Test one or more of them for speed and consistency.
6. Write instructions and test results for each distance tool.
7. Tweak the web user interface to be responsive and mobile friendly using Bootstrap.

Let us know if you have any questions.

Thanks!

Mike