Oleg ML code

2 messages

From: Mark McCann <Mark.McCann@asu.edu>
To: Luc Anselin <Luc.Anselin@asu.edu>
Date: Tuesday, December 18, 2012 4:24:14 PM
Subject: Re: Oleg ML code

Would you like the actual files? It might be easier to just work directly from the online source browser in the SVN trunk. The formatting is pretty good:

https://geodacenter.repositoryhosting.com/trac/geodacenter_opengeoda/browser/trunk/Regression/ML_im.h

The above is the ML header file. These are the main methods for running the error and lag ML models. The implementation is in the corresponding ML_im.cpp file.

https://geodacenter.repositoryhosting.com/trac/geodacenter_opengeoda/browser/trunk/Regression/ML_im.cpp

Let me know how you'd like to help you with this.
I'm in a SB right now, but it might be helpful to look at it together with some screen sharing.

If you'd like to pull down the latest source from the SVN, just run the following command in the directory of your choice on your mac:

svn checkout https://geodacenter.repositoryhosting.com/svn/geodacenter_opengeoda/trunk ./geoda_trunk

This will copy all of the source into a new directory named "geoda_trunk" from wherever you run the command. The regression code is all contained in the "Regression" subdirectory, and you'll find the ML_im.cpp file in there.

I've spent the last couple of days getting OpenGeoDa working on the latest versions of Linux again. Working pretty well now and I'm going to update the beta binaries with Ubuntu 12.x binaries.

- M

On Dec 18, 2012, at 2:53 PM, Luc Anselin wrote:

> Hi Mark:
> I've been going through various materials on the particular ML algorithm implemented in geoda by Oleg. I'm trying to replicate it for pysal. Could you send me the source code of the relevant parts. This won't necessarily help, but it might.
> The bottom line is that it is a recursive algorithm that does a lot of reshuffling of rows and columns of the weights matrix and I wonder how it was implemented. I also wonder if characteristic values are actually computed at some point. The recursive algorithm builds up the full log jacobian from sub matrices and doesn't actually need characteristic roots, but I think at some point (the lowest level) it does, and I'd like to figure out how this is implemented.
> L.
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> --
> Luc Anselin, PhD
> Regents' Professor and Walter Isard Chair
> Director, School of Geographical Sciences and Urban Planning
> Director, GeoDa Center for Geospatial Analysis and Computation
> Arizona State University

From: Luc Anselin <lanselin@gmail.com>
To: Mark McCann <Mark.McCann@asu.edu>
Date: Tuesday, December 18, 2012 3:53:05 PM
Subject: Oleg ML code

Hi Mark:
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The bottom line is that it is a recursive algorithm that does a lot of reshuffling of rows and columns of the weights matrix and I wonder how it was implemented. I also wonder if characteristic values are actually computed at some point. The recursive algorithm builds up the full log jacobian from sub matrices and doesn't actually need characteristic roots, but I think at some point (the lowest level) it does, and I'd like to figure out how this is implemented.
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Director, School of Geographical Sciences and Urban Planning
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