**PyTrans**

PyTrans is a project with packages that should allow us to implement the Frank Wolfe Algorithm if we can import it into Python (which I am having trouble with).

[GitHub Repository](https://nbviewer.org/github/PyTrans/)

[PyTrans Website](https://pytrans.github.io/)

[Trip Assignment - Frank Wolfe Algorithm](https://pytrans.github.io/developer-guidance/TUT_UNA.html#module-PyTrans.UrbanNetworkAnalysis.Frank_Wolfe)

Source Code:

[Transportation Networks Source Code](https://pytrans.github.io/developer-guidance/_modules/PyTrans/UrbanNetworkAnalysis/TransportationNetworks.html)

[Frank Wolfe Source Code](https://pytrans.github.io/developer-guidance/_modules/PyTrans/UrbanNetworkAnalysis/Frank_Wolfe.html)

**AequilibraE**

AequilibraE is another package that implements similar things and does have a Frank Wolfe solver though I don’t believe it allows you to define your own latency function.

[AequilibraE Traffic Assignment Procedure](http://www.aequilibrae.com/python/latest/traffic_assignment.html)

**R Package for Nonlinear Optimization**

<https://cran.r-project.org/web/packages/Rsolnp/Rsolnp.pdf>

* Read documentation and figure out what the code does
* Get the code to run for some network (Souix Falls?)
* Is it possible to do multiple start and end points for trips?
* Can we change the latency function?
* How would we turn the streets on and off?
* Make a plot