Hi Guys --

Sorry for the delay.

Andrew sent this updated proposal summary:

We'll be working to replicate and extend the ICE paper (<https://arxiv.org/abs/1309.6392>).

1. Replicate the ICE paper by replicating the datasets and trained models but using their package.
2. Rebuild their ICE package to learn its hidden assumptions and make sure the output of this step is the same as in step 1.
3. Extend the paper to new simulated and real-world datasets/models.
4. Extend the paper by using the CATE idea we originally proposed to extract a numeric feature importance from the ICE framework. This CATE of feature k*k* will be a function of all other features not including feature k*k*.

Let me know if this plan makes sense and sounds feasible. We may drop step 4 if step 2 of rebuilding their package is more involved than expected.

This sounds good to me. I think implementing ICE should be fairly straightforward. I'm preparing to present it on Wednesday, so if I get any more ideas of things to investigate, I'll let you know!

One thing that ICE plots don't do very well is indicate parts of the curves that are plausibly "in sample" vs unlikely to be real observations. Maybe you can think of a way to overlay that....

David