Talking Points for Capstone 1:

Conclusion:

Average error of 0.13 cents per $1.00. But what does this mean to you? I can explain this to you with graphs [load graphs] and go through process of how I got to this, but how would this benefit your company? Why is being correct an average of $0.87, for every dollar, a big deal? And then it dawned on me...

Who Cares?

The issue I'm having has nothing to do with the contest or the quality of my prediction. This isn't a data science problem. It's a "Data" problem.

And it's not unique. Most companies do not know what to do with data, and I would be remiss to convince you of something you don't need. Taking that into account, here are my recommendations.

Recommendations

1.   Engineer data infrastructure. This would allow us to productionize the model for use at scale, increase the amount of data coming in, allow data flexibility, and access to everyone.
2.   Create a data-driven culture. Teach what data is and is not so that everyone can be on the same page. Have the data team learn domain knowledge and insights from the realtors, and have the realtors be open to newly discovered patterns, trends, and factors.
3.   Identify goals and teams. What are the most important questions or problems that your data team can investigate? Are your teams cross-functional or separate?

        The goal is to increase revenue through the use of data. By setting-up the proper infrastructure and instilling a data culture, we are investing in a future where any and all data can be used to quickly capitalize on revenue-increasing opportunities. Furthermore, identifying goals and creating the proper team organization will help smooth this transition. In a world where the use of data is becoming widespread and adopted, AREC can position themselves at the head of the curve.

Infrastructure

How can we productionize a model if we don't have the engineers?
The model needs to be updated periodically with new data. How are we going to do that?
Where is the data housed? In what form? Where do we get the data from? (quote about getting data from unconventional sources)
Who has access to the data?

Culture

True story. I was once working for a company where the One of the biggest issues is that people don't know what their data can do for them. They had multiple projects on hold because they did not know how Data Scientists could help them. They're missing opportunities
What data is important? Where to get it?
Questions to ask

Insights from realtors

Goals

What's the goal? Is it predicting SalePrice? Is it identifying emerging trends to capitalize before competitors know about it? Is it finding certain demographics who will buy a house in this range, and targeting them with marketing?
Do we need a model with a certain degree of accuracy, or is it speed to have the teams act on the information fast?

Teams

Regarding teams, is it cross-functional or functional?

Solution

What is the Solution?

Partnership. My team and I will tailor our services to meet your needs. No more wondering or hoping that data will help your business. No more confusing presentations and unexplainable solutions. Everyone has a say with the data and everyone has equal access to the data

We're customer service oriented. Aside from our technical expertise, we listen to exactly what you and your staff are looking for. We'll train them on how data can help them, and learn as they teach us domain knowledge.

Success. Our success is tied into your success. We only work on projects that are part of your company's overall goals and mission. We strive to get actionable results fast and give the key insights to your staff who can give them that competitive edge.

Opportunity

I gave you the solution to the contest. But it doesn't solve anything. I know what I'm proposing is drastic but I would see this as an investment. Everyone wants to take advantage of AI, big data, and machine learning.

In the 2018 KPMG Global Proptech Survey, almost 50% of the respondends believed that AI, Big Data, and Big Data Analysis, "Will have the biggest impact on the real estate industry in the long term." Furthermore, in the Deloitte 2021 CRE Outlook, over half (56%) of the 200 commercial real estate leaders, "Believed that digital transformation of the business could become a business imperative." In other words, there is a trend in real-estate towards harnessing and utilizing data science.

It's only a matter of time before your competitors adapt and use machine learning to their advantage. The question is would you rather act now or react when everyone already as it? Right now, you have the option to invest but if you wait it might boil down to survival.