Presentation:

“On the Same Wavelength”

About Me:

* former grantwriter turned data science student
* lifelong interest in how physical products move in an interconnected world
* before the immersive data science program
* completed a MicroMasters in supply chain analytics and modeling from MITx

My project:

* used data from the American subsidiary of a European manufacturing company of high-end consumer products (anonymous)
* demand highly seasonal – nearly half of all sales in the fourth quarter of the year.
* forecasting is done on a yearly basis since
* long lead times (nearly 4 months)
* little wiggle room to adjust to peak season market changes
* compared 3 methods for forecasting for seasonal demand: Box Jenkins, Holt Winters, and the modestly named Facebook prophet
* accuracy of forecasts highly dependent on the underlying distribution of data
* identified clusters of like products that move similarly in time using k-means clustering with dynamic time warping as a distance measure
* come by

On the Same Wavelength: Clustering Product Demand with Dynamic Time Warping

* Goal: Improve forecasts for 1,833 products with seasonal demand
* Data: Came from the American subsidiary of a European manufacturing company of high-end kitchen products (company wishes to remain anonymous)
* Compared 3 forecasting models: Box-Jenkins, Holt-Winters, FB Prophet
* Solution: Segmented products using k-means clustering with dynamic time warping as a distance measure

Questions:

1. “How will you measure the success of the person in this position?”

2. “What are some of the challenges you expect the person in this position to face?”

3. “Thinking back to people you’ve seen do this work previously, what differentiated the ones who were good from the ones who were really great at it?”