Alpha Presentation
Benefit Plan Recommender Engine

The Capstone Experience
Team Delta Dental Data Science

Nicole Keller
Arden Knoll
Nick Lenaghan
Derek Nguyen

Department of Computer Science and Engineering
Michigan State University
Fall 2021
Project Overview

• Data inputs are collected through a series of web pages

• We use an unsupervised learning method (k-means clustering) to create customer segments in the back end

• New customers are then mapped to the created customer segments

• Each segment is tied to an insurance plan provided by the client
System Architecture
Choosing a Path
Small Business Track

I can show you some great options in a few minutes.

What’s the name of your business?
I work at Michigan State University

What type of work do you do?
We do work in the Education sector
Mobile Individual Track
Insurance Results

Here are your plan recommendations!

Your Recommended Plan: Sophisticates
People enrolled in this plan are primarily single. They tend to enjoy going to yoga or other exercise classes. Credit card bills are paid off monthly in full more often than not. Household members may enjoy attending classical music concerts.

$47.27 / Month
View Details

People enrolled in this plan also shopped for the following types of insurance:
- Vision
- Pet
- Disability
What’s left to do?

• Smooth out user experience
  ▪ Require field to have input before moving to next
  ▪ Auto fill address field
  ▪ Cleaning up HTML/CSS

• Create the individual clusters

• Create the corresponding plans to the clusters
Questions?