Abstract
The goal of this project is to build and train an A.I. to accurately predict medical diagnoses. Our approach was to use a clustering-based algorithm to predict outcomes. The algorithm utilizes a data warehouse of patient records to construct the model's groupings. Groupings are based on similar features. Providers can interact with the model by uploading individual patient records, which are then compared against the model. We use a graph to show the likelihood of a patient to have or develop an illness.

Architecture
Clustering Algorithm:
- Python
- Tensorflow

Backend:
- C#

GUI:
- WPF
- OxyPlot

Summary
- Developed parser to construct objects from patient records, which are used for processing that is required to construct the clustering model.
- Clustering algorithm groups patient records based on similar features (diagnoses, health conditions, etc.)
- Parser system also creates a csv which is also used in creating the model.
- Created graphical interface using WindowsForms to output the result of comparing individual patient record against the clustering model.

Results

Impact
The Aprima A.I. project aims to aid medical providers, and give them insight into what conditions they should look out for in patients. This semester, we initiated development of this application and established a functional proof of concept.