

Conversion of prediabetes to diabetes - A Retrospective Analysis

A classification model was developed to predict who would convert to T2DM from prediabetes most quickly, achieving high accuracy in identifying which patients to target for immediate nursing interventions. The model used various algorithms & modules.

The challenge

Given a specific set of risk factors, it is difficult to estimate who will go on to develop T2DM within five years. Identifying the people most likely to convert allows for early intervention, which may prevent or delay future disease, thereby alleviating a substantial amount of suffering.

The solution

The study used GCP services like Cloud Storage, BigQuery, and Jupyter Notebooks to clean a dataset, import columns, and create a classification model for predicting T2DM diabetes. The model provided insights into the dataset and identified patients suffering from T2DM diabetes, achieving high accuracy in predicting conversion from prediabetes to type 2 diabetes.

The result

Prediction accuracy: Achieved 92% accuracy in predicting the conversion from prediabetes to type 2 diabetes. Sensitivity: 95% of individuals who actually converted to type 2 diabetes were correctly identified.

The model achieved high accuracy in identifying patients who are more likely to convert from prediabetes to T2DM earlier, providing insight into where to best focus clinical interventions.



About Translational Health

Translational Health gathers experienced healthcare and analytics leaders, passionate about empowering care providers with data-driven insights, to think creatively about innovative solutions to complex problems. We support similarly minded, mid-sized organizations to achieve their goals.

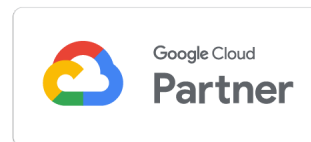
Vertical/horizontal solution: Healthcare & Life Sciences

Primary project location: United States



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We are passionate about Data and the power of the Cloud. We provide services to our enterprise customers in the areas of Data Analytics on the Cloud.



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