## **Diabetes Prediction Report**

Patient Health Parameters:

Pregnancies: 1.0

Glucose: 120.0

BloodPressure: 70.0

SkinThickness: 20.0

Insulin: 79.0

BMI: 25.0

DiabetesPedigreeFunction: 0.5

Age: 33.0

**Prediction: Non-Diabetic** 

**Probability: 0.16** 

SHAP Feature Contribution (see plot):

SHAP (SHapley Additive exPlanations) values help explain how each health parameter influenced the model's prediction for this patient.

0.05 0.10 0.15 0.20 0.25 0.30 0.35 0.40 0.45

A negative SHAP value means the feature pushed the prediction towards 'Non-Diabetic'.

- In the force plot, each colored bar represents a feature's contribution:
  - 1. Red: pushed the risk \*\*higher\*\* (towards diabetic)
  - 2. Blue: pushed the risk \*\*lower\*\* (towards non-diabetic)
- The size of each bar shows the strength of its impact.

This allows patients and doctors to see which specific health values (like glucose, BMI, insulin) were most responsible for the prediction.