ML models were developed using Python 3.12.4 with their respective libraries: PyTorch for the neural network model, scikit-learn for random forest, and xgboost for the XGboost model. Data preprocessing was performed using the pandas library while performance metrics and visualizations were generated using scikit-learn and matplotlib. The SHAP (SHapley Additive exPlanations) library was used to evaluate feature importance and generate plots illustrating each feature’s impact on model predictions.