Signal Input	InputLayer	input:	[(None, 250, 1)]
		output:	[(None, 250, 1)]

Micro_Conv1	Conv1D	input:	(None, 250, 1)
		output:	(None, 246, 64)

Macro_Conv1	Conv1D	input:	(None, 250, 1)
		output:	(None, 221, 64)

batch_normalization_17	BatchNormalization	input:	(None, 246, 64)
		output:	(None, 246, 64)

batch_normalization_21	BatchNormalization	input:	(None, 221, 64)
		output:	(None, 221, 64)

activation_9	Activation	input:	(None, 246, 64)
		output:	(None, 246, 64)

activation_12	Activation	input:	(None, 221, 64)
		output:	(None, 221, 64)

max_pooling1d_9	MaxPooling1D	input:	(None, 246, 64)
		output:	(None, 123, 64)

max_pooling1d_12	MaxPooling1D	input:	(None, 221, 64)
		output:	(None, 110, 64)

Micro_Conv2	Conv1D	input:	(None, 123, 64)
		output:	(None, 119, 128)

Macro_Conv2	Conv1D	input:	(None, 110, 64)
		output:	(None, 81, 128)

batch_normalization_18	BatchNormalization	input:	(None, 119, 128)
		output:	(None, 119, 128)

batch_normalization_22	BatchNormalization	input:	(None, 81, 128)
		output:	(None, 81, 128)

activation_10	Activation	input:	(None, 119, 128)
		output:	(None, 119, 128)

activation_13	Activation	input:	(None, 81, 128)
		output:	(None, 81, 128)

max_pooling1d_10	MaxPooling1D	input:	(None, 119, 128)
		output:	(None, 59, 128)

max_pooling1d_13	MaxPooling1D	input:	(None, 81, 128)
		output:	(None, 40, 128)

Micro_Conv3	Conv1D	input:	(None, 59, 128)
		output:	(None, 55, 128)

Macro_Conv3	Conv1D	input:	(None, 40, 128)
		output:	(None, 11, 128)

batch_normalization_19	BatchNormalization	input:	(None, 55, 128)
		output:	(None, 55, 128)

batch_normalization_23	BatchNormalization	input:	(None, 11, 128)
		output:	(None, 11, 128)

activation_11	Activation	input:	(None, 55, 128)
		output:	(None, 55, 128)

activation_14	Activation	input:	(None, 11, 128)
		output:	(None, 11, 128)

max_pooling1d_11	MaxPooling1D	input:	(None, 55, 128)
		output:	(None, 27, 128)

max_pooling1d_14	MaxPooling1D	input:	(None, 11, 128)
		output:	(None, 5, 128)

flatten_3	Flatten	input:	(None, 27, 128)
		output:	(None, 3456)

flatten_4	Flatten	input:	(None, 5, 128)
		output:	(None, 640)

dense_10	Dense	input:	(None, 3456)
		output:	(None, 150)

dense_12	Dense	input:	(None, 640)
		output:	(None, 100)

dropout_9	Dropout	input:	(None, 150)
		output:	(None, 150)

dropout_11	Dropout	input:	(None, 100)
		output:	(None, 100)

batch_normalization_20	BatchNormalization	input:	(None, 150)
		output:	(None, 150)

batch_normalization_24	BatchNormalization	input:	(None, 100)
		output:	(None, 100)

dense_11	Dense	input:	(None, 150)
		output:	(None, 50)

dense_13	Dense	input:	(None, 100)
		output:	(None, 50)

dropout_10	Dropout	input:	(None, 50)
		output:	(None, 50)

dropout_12	Dropout	input:	(None, 50)
		output:	(None, 50)

Micro_Conv_output	BatchNormalization	input:	(None, 50)
		output:	(None, 50)

Macro_Conv_output	BatchNormalization	input:	(None, 50)
		output:	(None, 50)

Feature Vector Input	InputLayer	input:	[(None, 12)]
		output:	[(None, 12)]

concatenate_1	Concatenate	input:	[(None, 50), (None, 50), (None, 12)]
		output:	(None, 112)

dense_14	Dense	input:	(None, 112)
		output:	(None, 512)

dropout_13	Dropout	input:	(None, 512)
		output:	(None, 512)

batch_normalization_25	BatchNormalization	input:	(None, 512)
		output:	(None, 512)

dense_15	Dense	input:	(None, 512)
		output:	(None, 256)

dropout_14	Dropout	input:	(None, 256)
		output:	(None, 256)

batch_normalization_26	BatchNormalization	input:	(None, 256)
		output:	(None, 256)

dense_16	Dense	input:	(None, 256)
		output:	(None, 128)

dropout_15	Dropout	input:	(None, 128)
		output:	(None, 128)

batch_normalization_27	BatchNormalization	input:	(None, 128)
		output:	(None, 128)

dense_17	Dense	input:	(None, 128)
		output:	(None, 1)

Supplementary Figure S1. Detailed neural network structure of our deep learning model. The model uses two input layer for signal vector and feature vector. The signal vector takes in the segmented PPG waveform data while feature vector takes in the HbA1c value and other PPG extracted features.