This coding test is to be kept confidential - please DO NOT share test or data

In the PresageMLCodingTest_2025.zip you will find 10 csv files. Each CSV contains ground truth vital measurements for a subject, with columns representing various vital signs. The task is to build and train a multimodal autoencoder for the following signals:

1. 'bp' - blood pressure waveform
2. 'breath_upper' - upper breathing waveform
3. 'ppg_fing' - PPG signal on the finger

The autoencoder should take in 8 seconds of data. You can find the temporal information of the signals in the 'time' column. Feel free to downsample data to make your network more manageable (eg. 30 hz).

Given the limited data it is understandable that variance between the train and hold out set might not be great. That's okay this doesn't need to be perfect, we are more focused on how you prepare data for ingestion, as well as, build and train your model.

Deliverable: Code and a short writeup explaining what you did, the assumptions you made, your autoencoder performance, and what you would do in the future if given more time.

Questions: jim@presagetech.com