Assignment 3: Online Signature Verification using DTW

Implement Online Signature Verification using Dynamic Time Warping.

You have to implement the following:

1. Preprocessing: Normalization and Smoothening the signature
2. Finding Features
   a. x-coordinate
   b. y-coordinate
   c. Pressure (p)
   d. Velocity along x-axis
   e. Velocity along y-axis
   f. dp/dx
   g. dp/dy
   h. dp/dt
   i. Azimuth
   j. Altitude
3. Using DTW find the maximum distance between two feature vectors (let D_i be the maximum distance for i^{th} feature).
4. Use AdaBoost and find the similarity measure $S = \lambda_1 D_1 + \lambda_2 D_2 + \ldots \lambda_{10} D_{10}$
   Where λ_i, $i = 1$ to 10 are weight of the features.
5. Verify the signature.