



National University of Sciences and Technology (NUST)
School of Electrical Engineering and Computer Science

Department of Computing

CS370: Artificial Intelligence

Class: BSCS-7AB

Lab 6: Offline Signature Verification Report

Date: 05-03-2020

Time: 10am-01pm & 2pm-05pm

Instructor: Dr. Imran Malik

Lab Engineer: Aftab Hussain



Introduction

The purpose of this lab is to judge what you have learned from our series of labs on offline signature verification. In this lab, you will analyze and summarize everything you have performed in previous signature verification labs, which you should have completed before starting this lab.

Objectives

After completing these series of labs, students will be able to understand how to:

- Develop a feature set, which is the basis of any machine learning algorithm

Lab Tasks

Before you begin working on this lab, you should have completed all the previous labs about signature verification. If you have not done them yet, now is a good time to start.

In this lab, you have to perform the following tasks:

1. In your report, briefly explain what you have done in each of the previous signature verification labs. Give a generalized overview in the beginning, list down the features used, and summarize your methodology.
 - a. e.g. how you divided the image into segments, and what did you use (summation, variance, standard deviation, etc.) to get a single value from the differences calculated for each of the 64 segments.
2. For each of the features used, make a heading of that feature, and under that heading:
 - a. Define the feature.
 - b. How did you calculate it? Show your algorithm in pseudocode or mathematical notation.
 - c. Include visualizations you plotted for that feature if any.
3. Identify top 3 features.
4. Explain what you have learned from our series of labs on signature verification.



Deliverables

Submit your report on LMS. Within next 3 hours.