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# CSE326: Software Engineering

## Final Project Proposal

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# 1 Introduction

## 1.1 Project Overview and Statement of Proposal

OCR (Optical Character Recognition) is a technique where an machine attempts to parse images, or a stream of images, into a matched set of some written alphabet—often just a set of alphanumeric characters. OCR is used in banking, note taking applications, and many other services on a daily basis. One of the most common implementations of OCR is the use of neural networks, often through supervised learning methods. We propose to create a simple neural network that will be trained and tested to classify a single image into an alphanumeric character.

## 1.2 Project Scope and Objectives

The initial scope of the project is the create a simple Optical Character Recognition (OCR) system using a neural network and employ supervised learning techniques to test and train our model. Our main objectives for the project include:

- (a.) A training and test environment for our neural network
- (b.) A graphical user interface that the user can draw characters for the model to classify them
- (c.) A graphical user interface to view the created neural networks to visually see how each model works

# 2 Risk Management Strategy

## 2.1 Risk Table

Risks	Category	Probability	Impact	RMMM
a	b	c	d	e

## **2.2 Discussion of Risks to Be Managed**

## **2.3 Risk Mitigation, Monitoring, and Management Plan**

### **2.3.1 Risk Mitigation**

### **2.3.2 Risk Monitoring**

### **2.3.3 Risk Management (Contingency Plans)**

## **3 Schedule**

### **3.1 Task List**

### **3.2 Timeline Chart**

### **3.3 Resource Table**

## **4 Project Resources**

### **4.1 People**

### **4.2 Hardware and Software Resources**

### **4.3 Special Resources**

## **5 Appendices**