



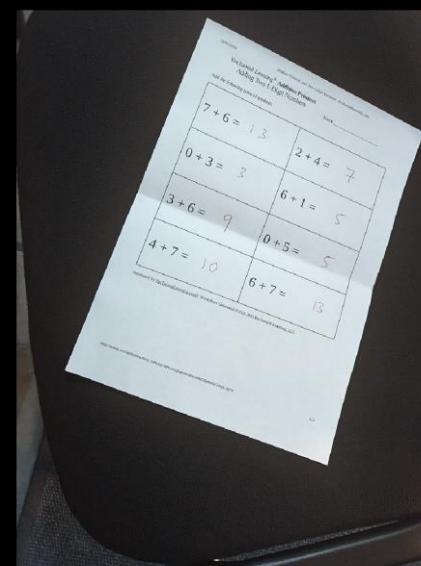
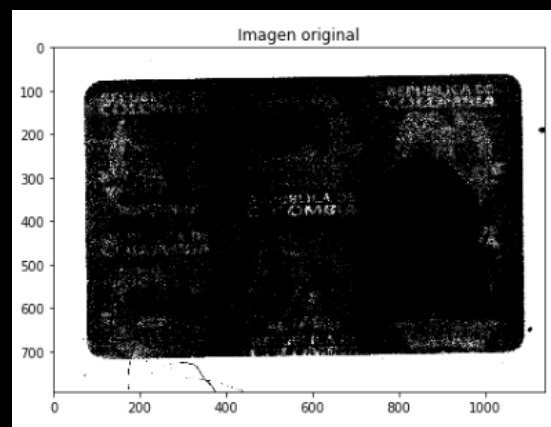
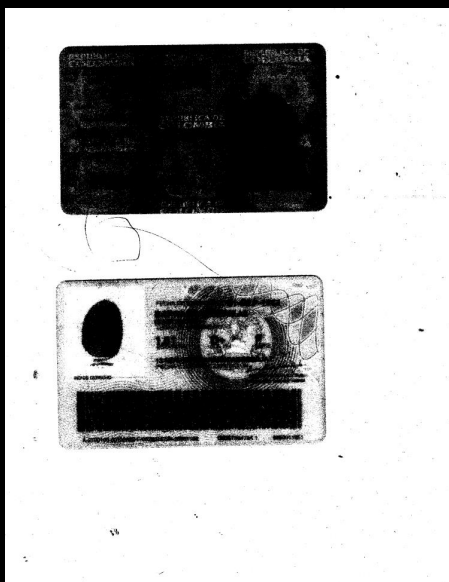
PROYECTO VISIÓN ARTIFICIAL



ESTADO DEL ARTE

- En estos momentos la lectura automática de información documentada es ampliamente utilizada por las grandes empresas para agilizar sus procesos contables y financieros.
- Los algoritmos mas utilizados hasta el momento son los OCR, sin embargo todavía siguen teniendo problemas si la imagen no está bien procesada.
- Algunos programadores independientes comparten sus propias redes neuronales y algoritmos entrenados para detectar y procesar lenguaje natural.



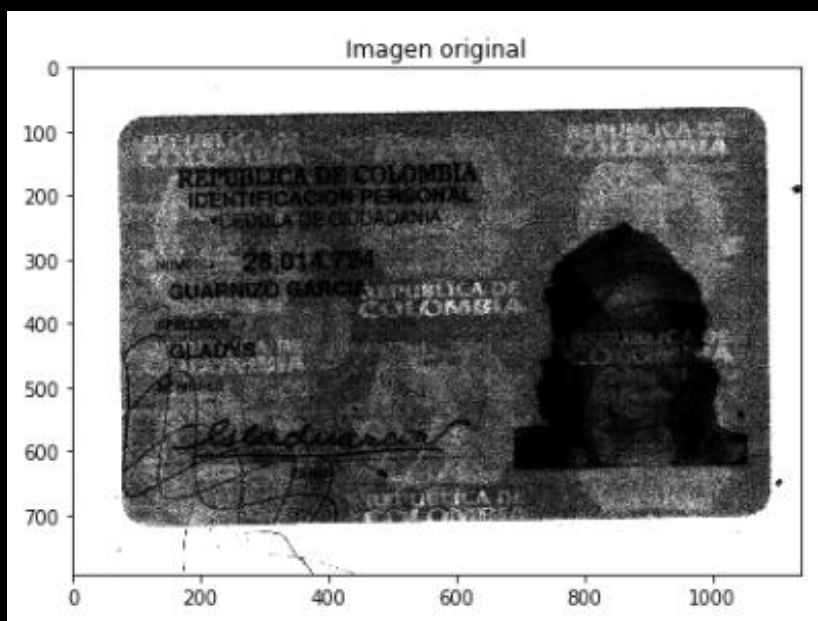


Enchanted Learning® Addition Printout
Adding Two 1-Digit Numbers

Add the following pairs of numbers

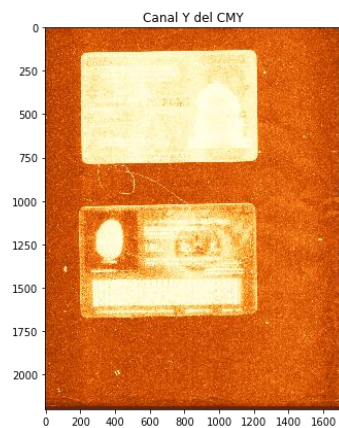
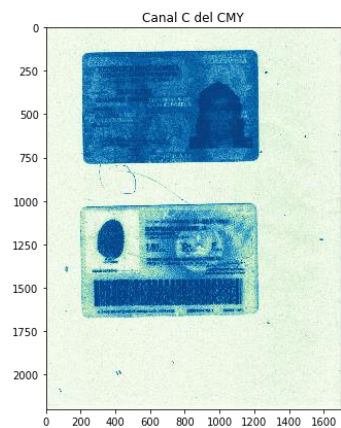
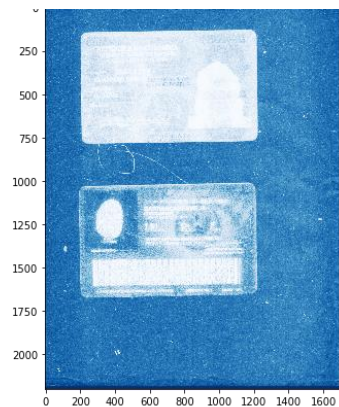
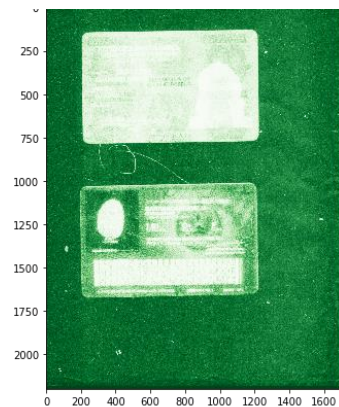
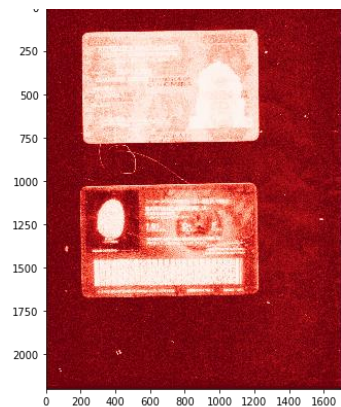
$7 + 6 = 13$	$2 + 4 = 7$
$0 + 3 = 3$	$6 + 1 = 5$
$3 + 6 = 9$	$0 + 5 = 5$
$4 + 7 = 10$	$6 + 7 = 13$

Generated by: ElchantedLearning.com Worksheet Generator ©2003-2012 Enchanted Learning, LLC

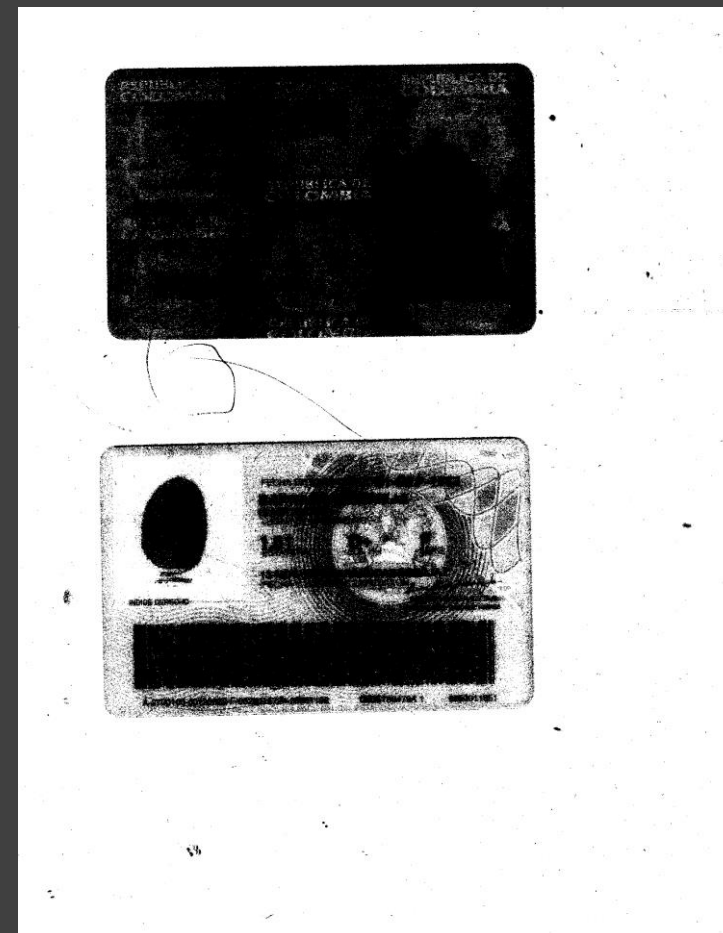


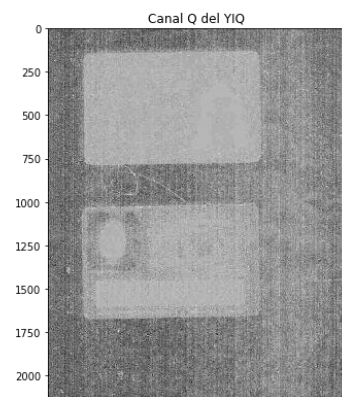
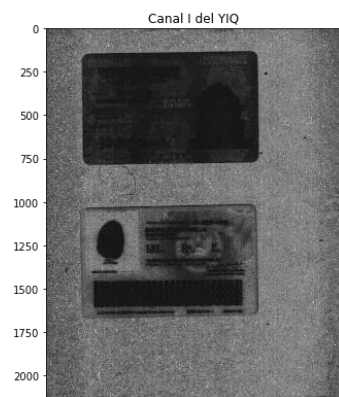
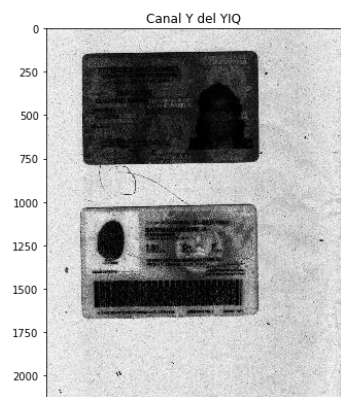
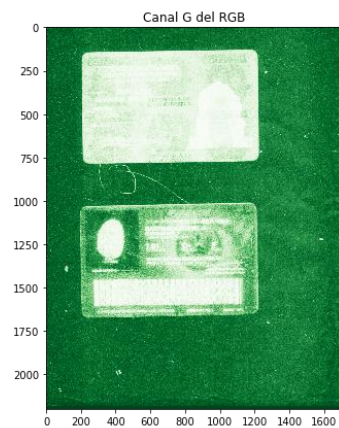
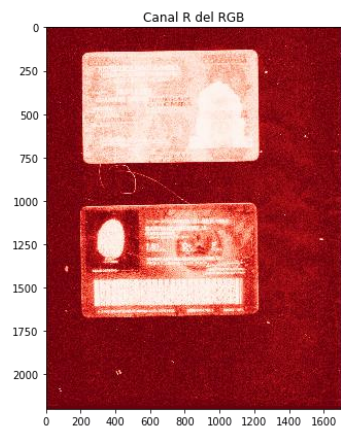
Etapa 1: Preprocesamiento

La primera dificultad encontrada es la alta variabilidad en la calidad de los escaneos; teniendo innumerables tipos de factores que influyen en la calidad del reconocimiento OCR como el ruido sal y pimienta, problemas de iluminación y imágenes rotadas y deformadas.

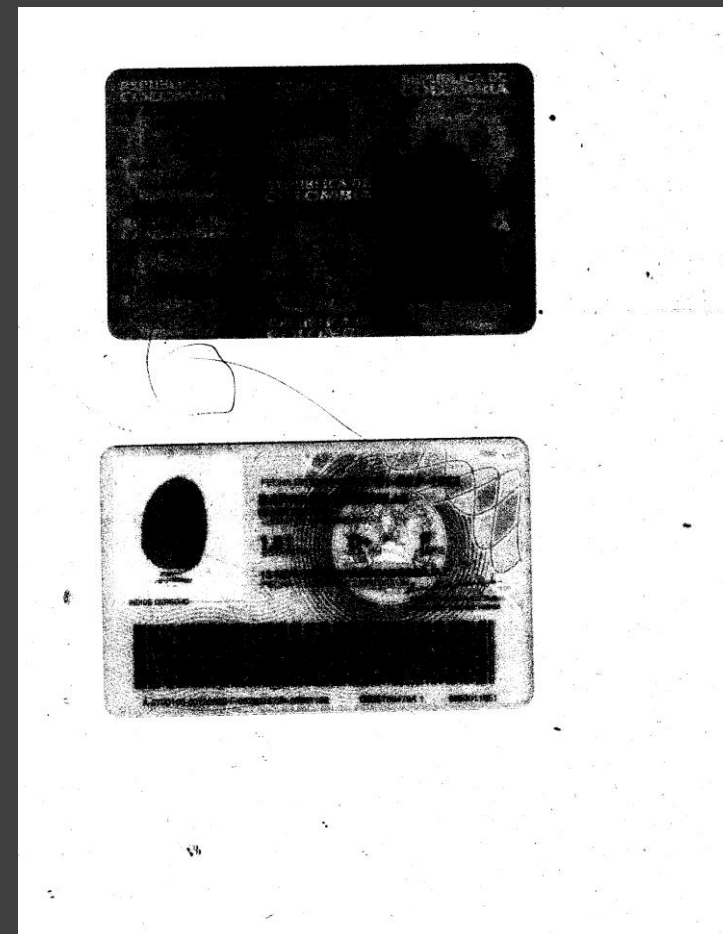


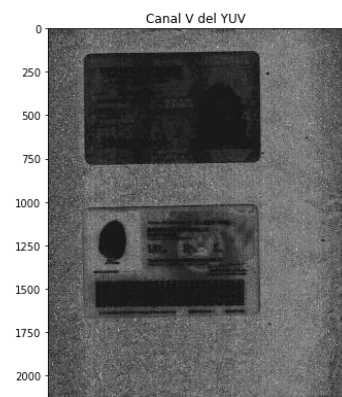
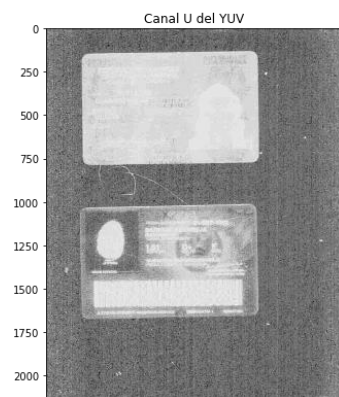
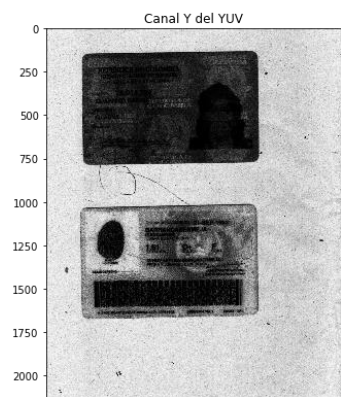
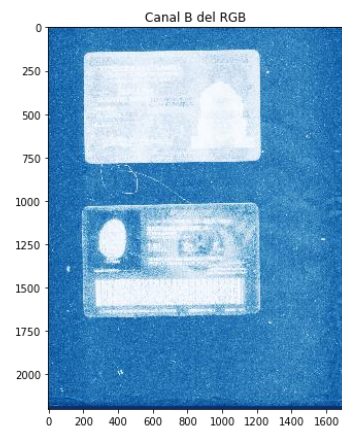
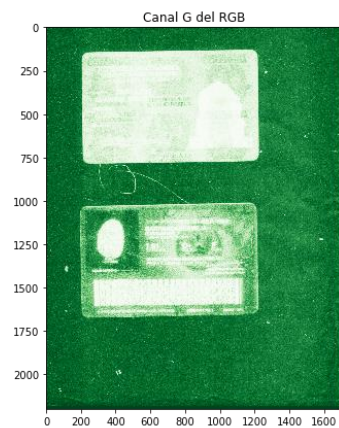
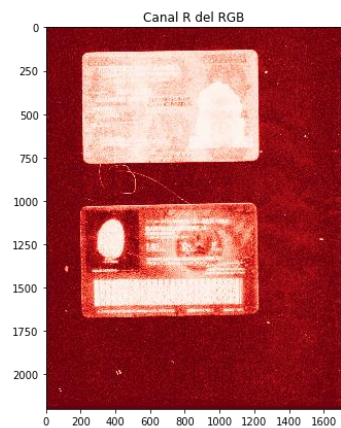
RGB VS CMY



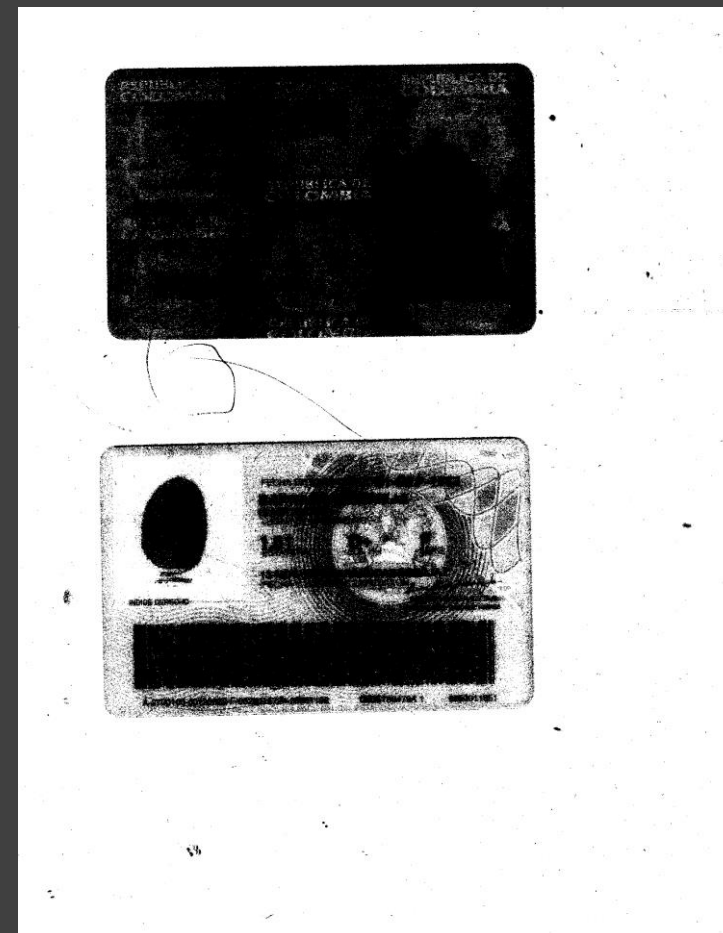


RGB VS YIP

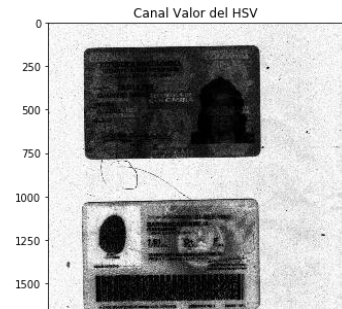
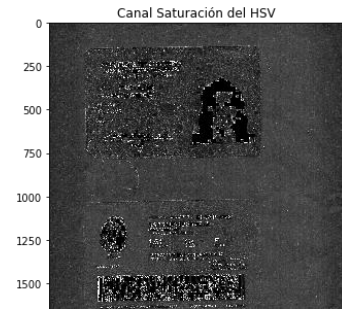
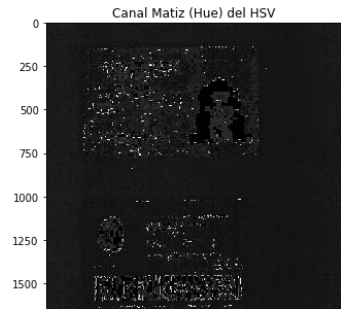
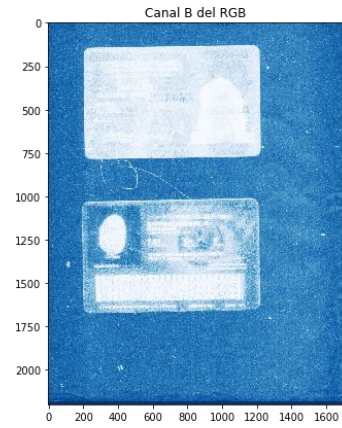
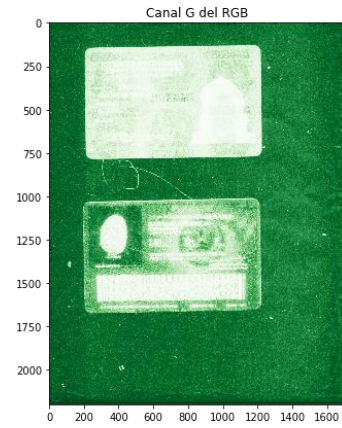
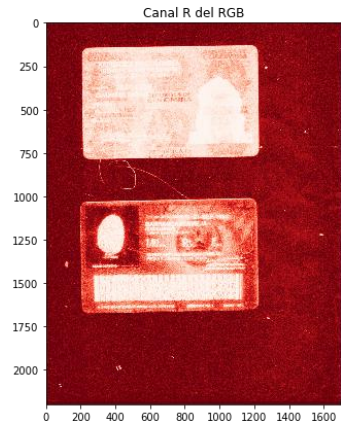




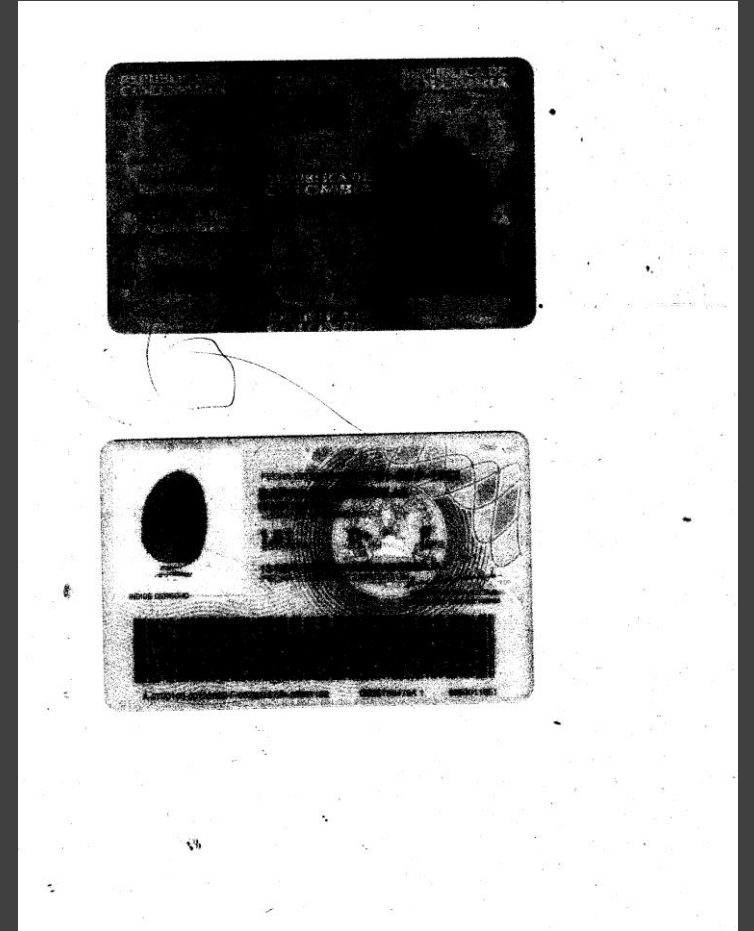
RGB VS YUP



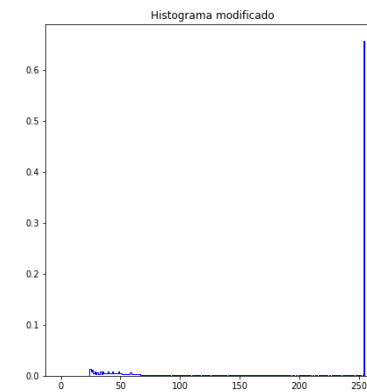
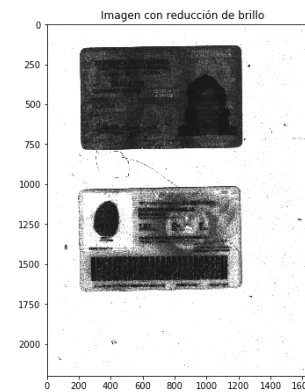
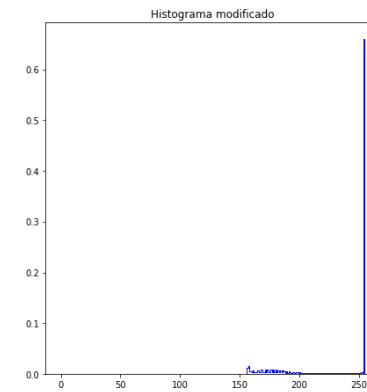
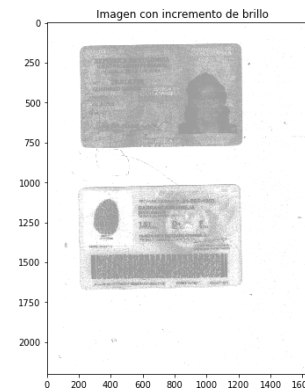
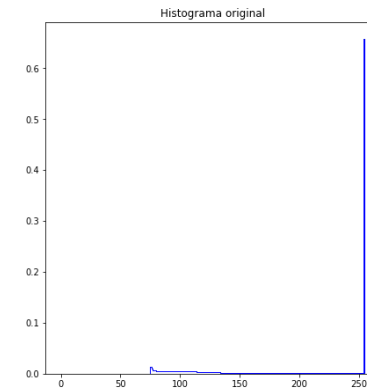
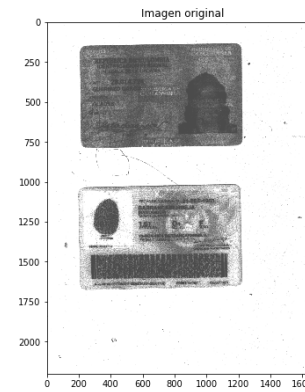
RGB vs HSL



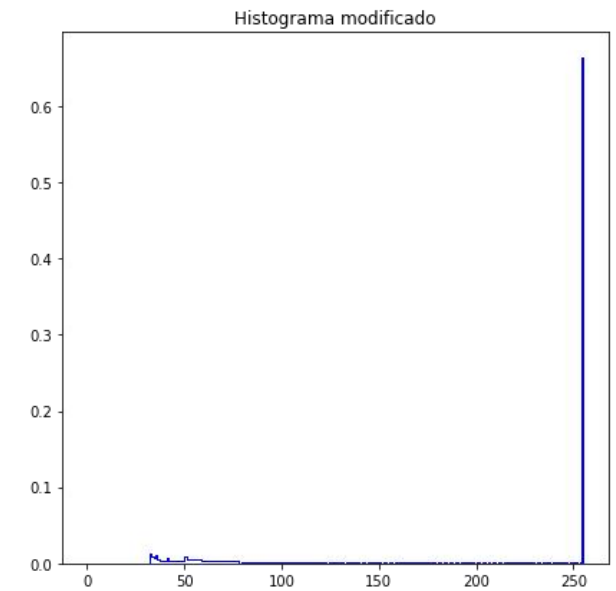
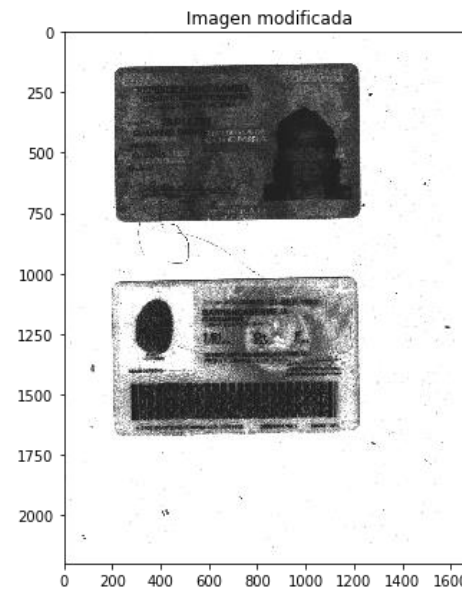
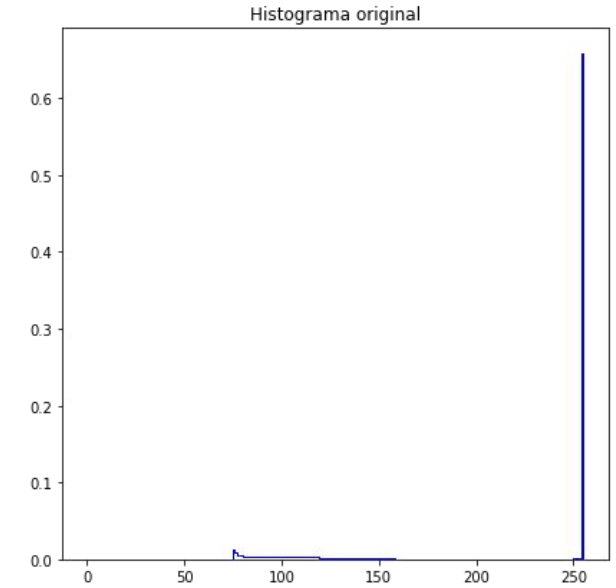
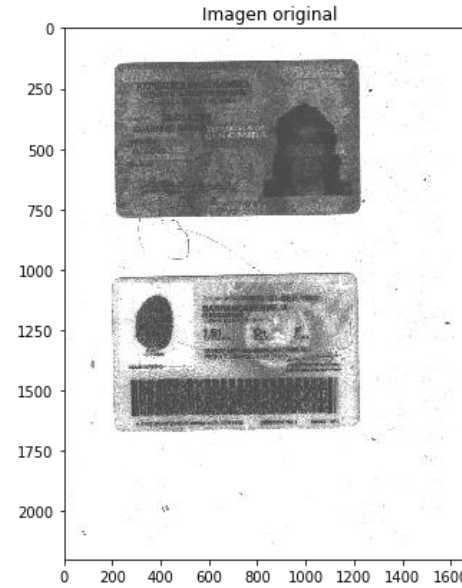
RGB VS HSL

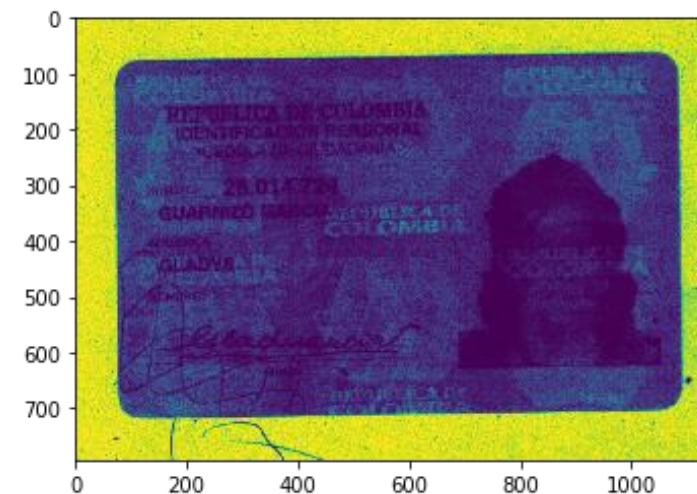
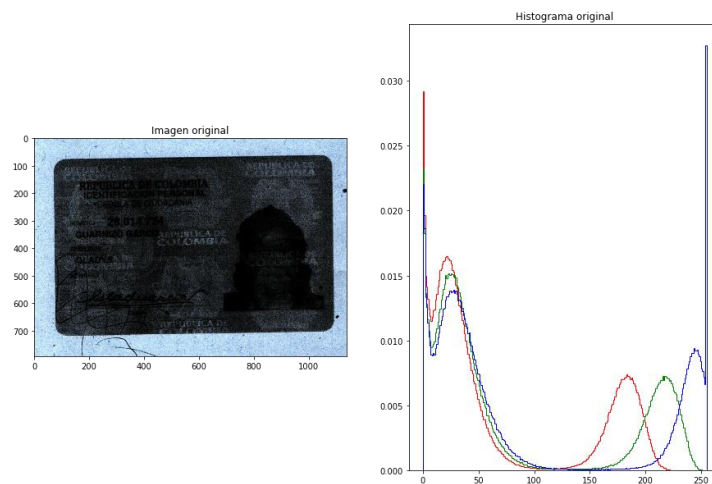
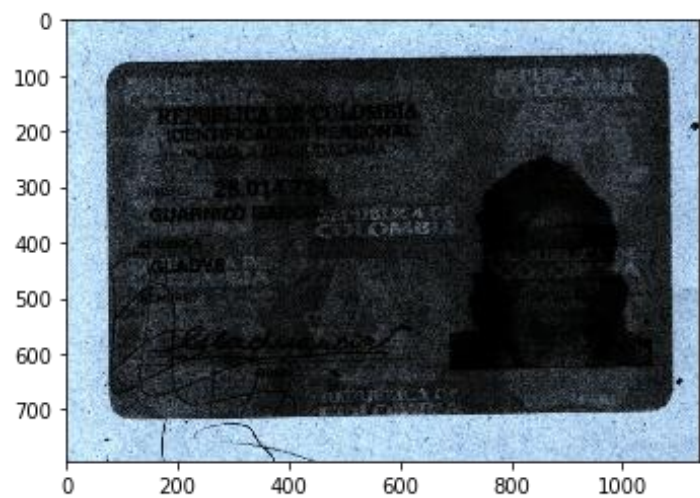


TRANSFORMACIÓN GAMMA



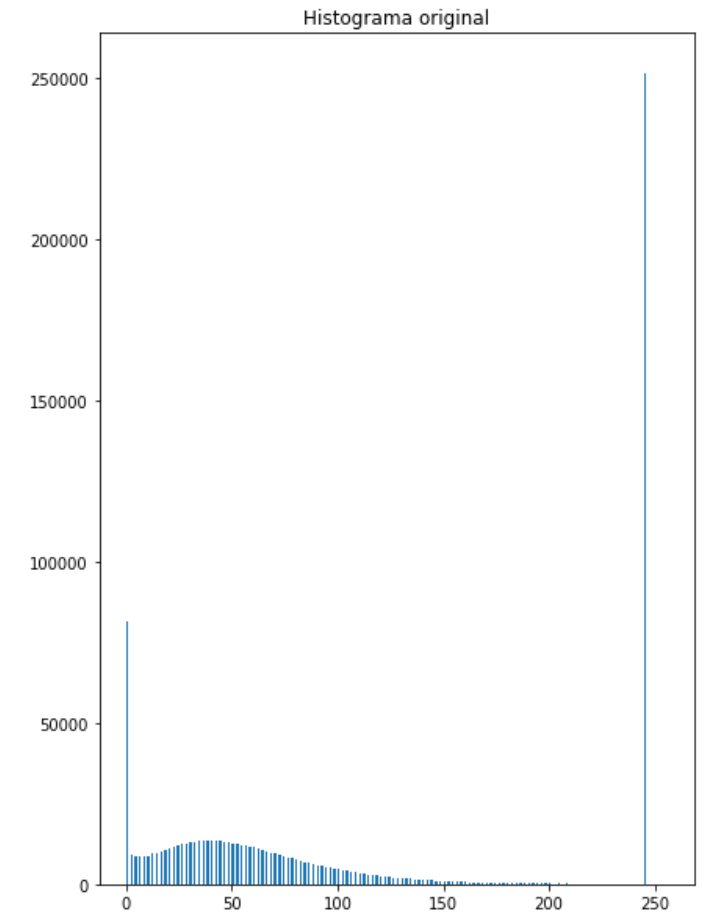
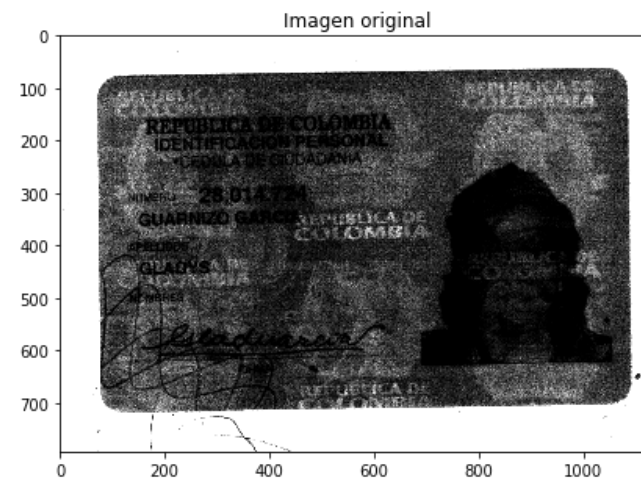
TRANSFORMACIÓN DE LA PARABOLA



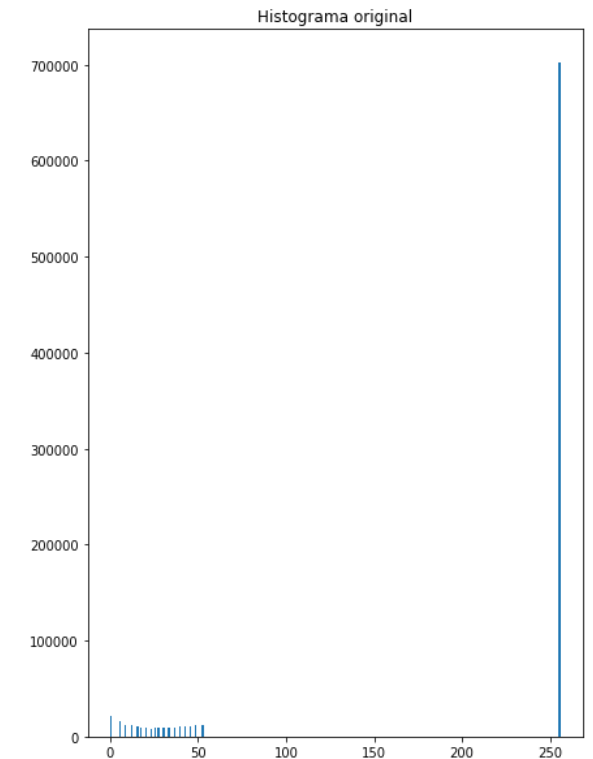
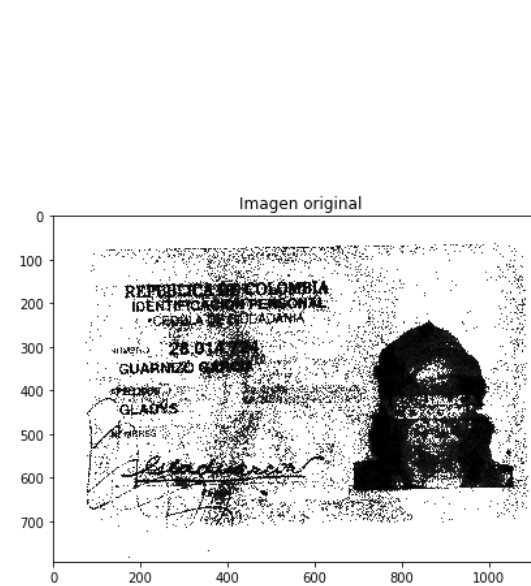
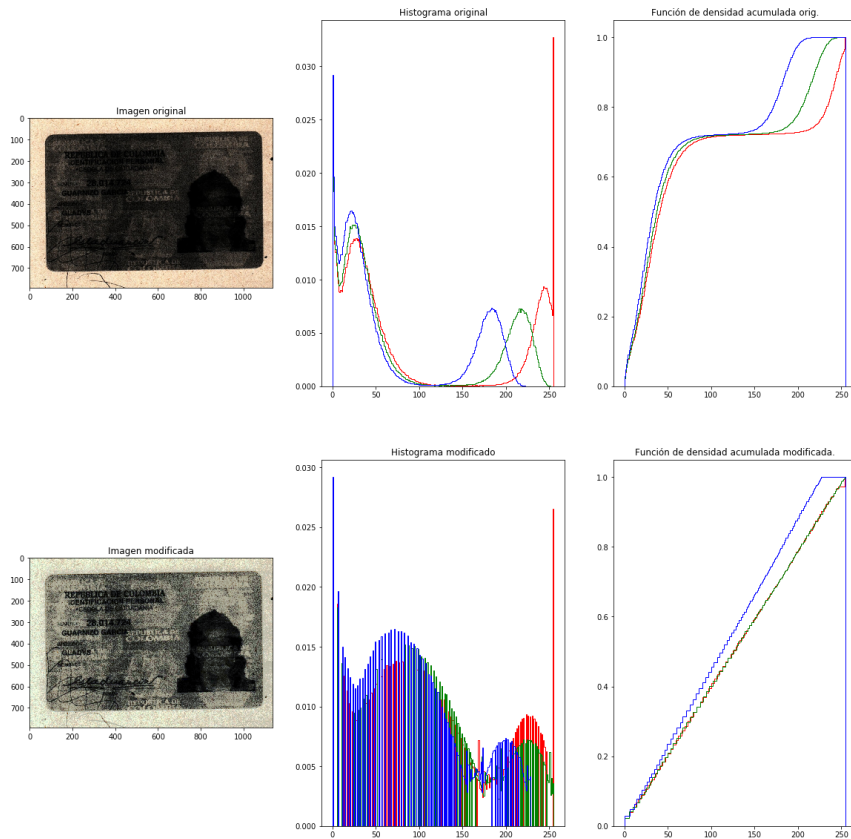


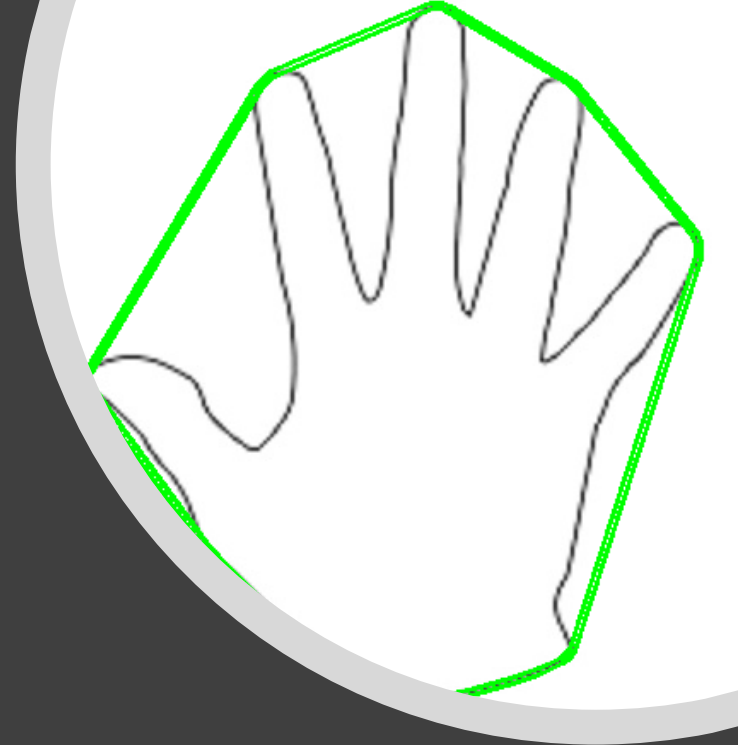
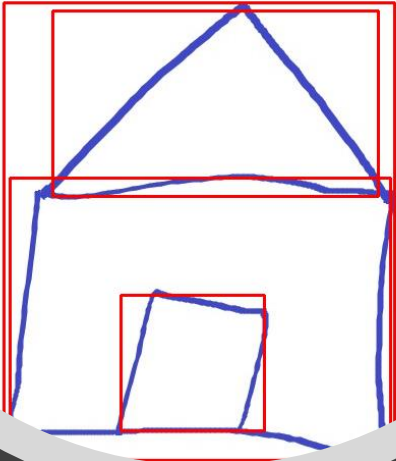
HISTOGRAMA

Transformacion lineal

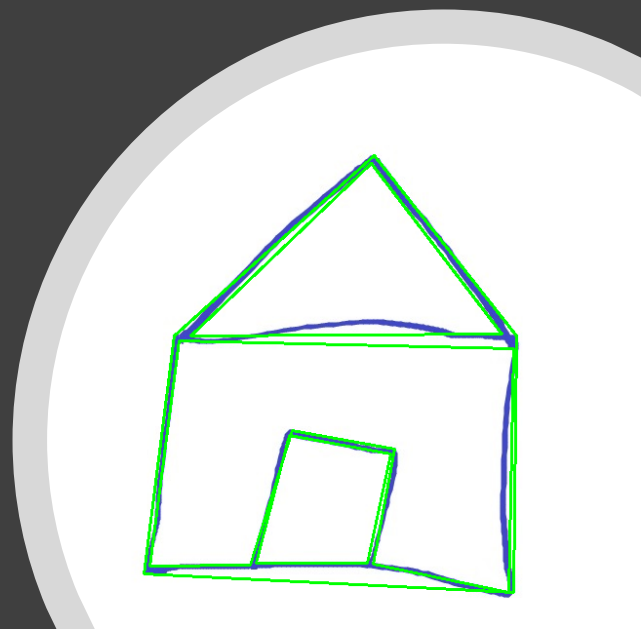


ECUALIZACIÓN

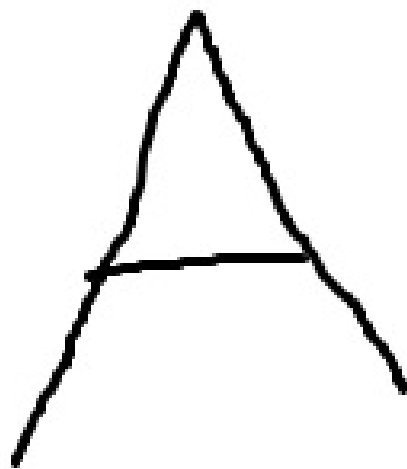




RECONOCER
FORMAS

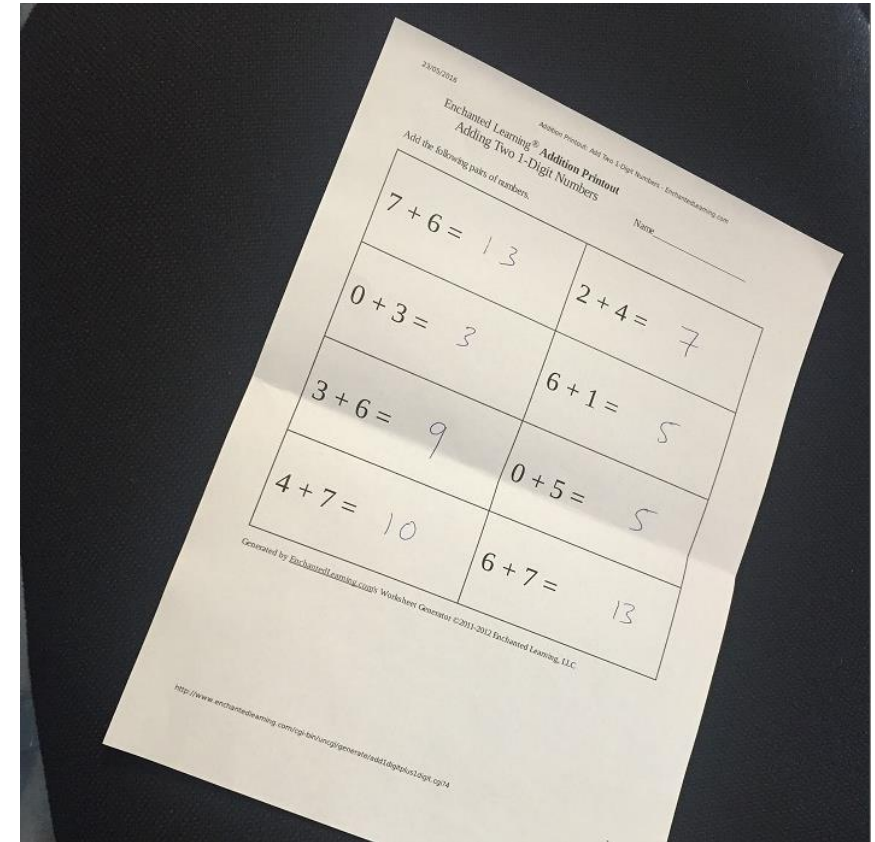
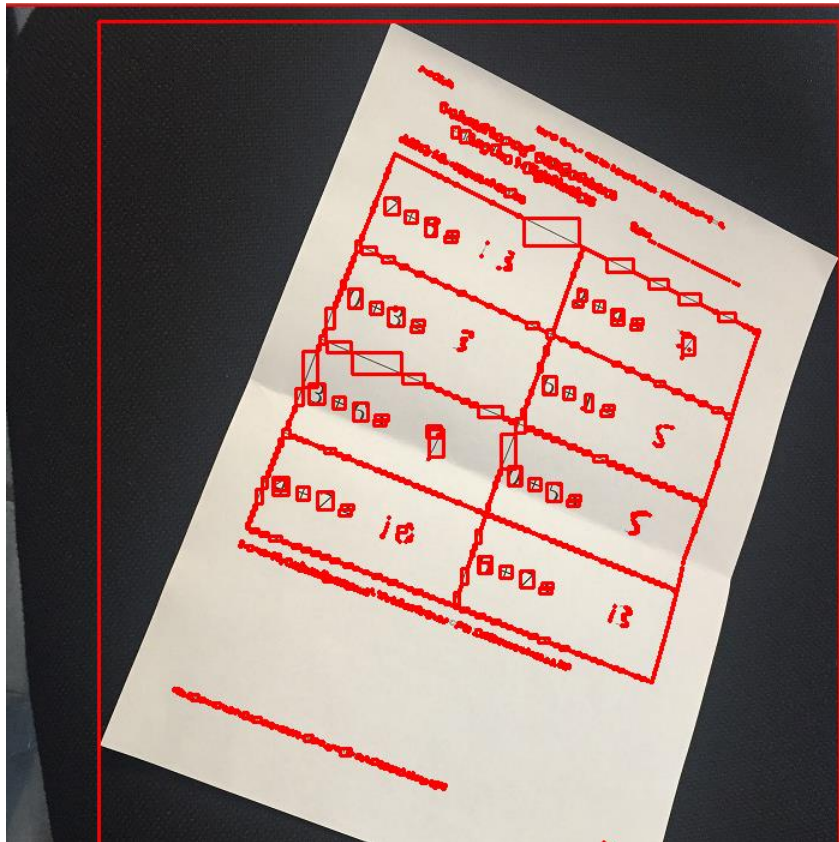


RECONOCIMIENTO DE CARACTERES

A handwritten uppercase letter 'A' in black ink, showing a slightly irregular, cursive style with a horizontal crossbar.

A B C D

RECONOCIMIENTO SIN ROTAR



ESTAPA 2: RECONOCIMIENTO DE BORDES Y CONTORNOS

19/05/2018 Addition Printout: Add Two 1-Digit Numbers - EnchantedLearning.com

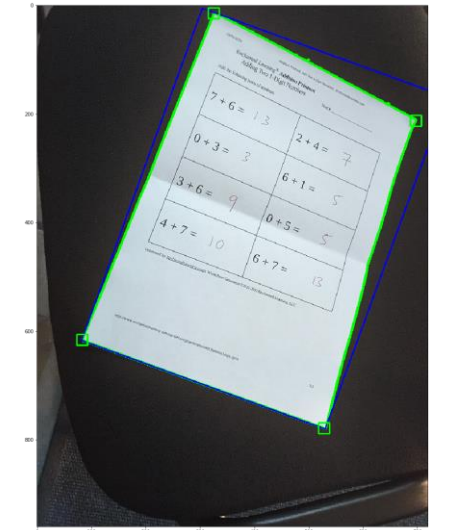
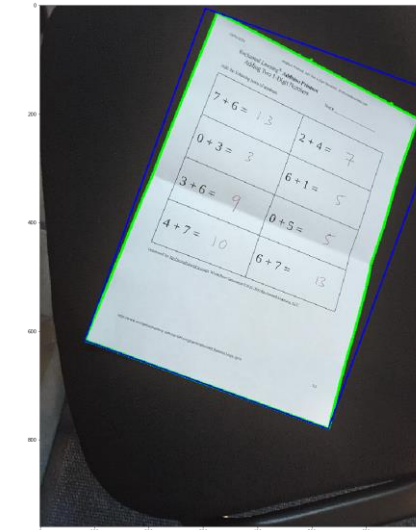
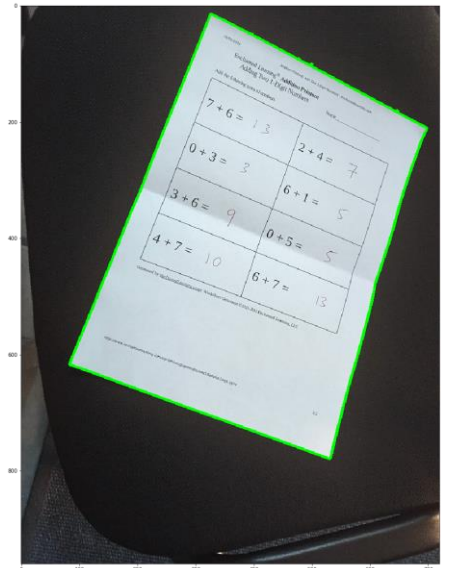
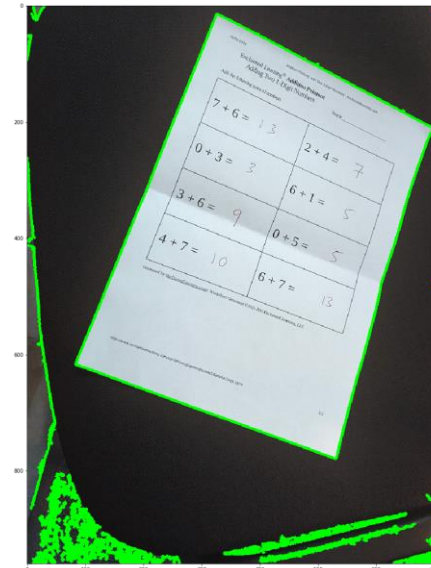
Enchanted Learning® Addition Printout
Adding Two 1-Digit Numbers Name: _____

Add the following pairs of numbers.

$7 + 6 = 13$	$2 + 4 = 7$
$0 + 3 = 3$	$6 + 1 = 5$
$3 + 6 = 9$	$0 + 5 = 5$
$4 + 7 = 10$	$6 + 7 = 13$

Generated by EnchantedLearning.com's Worksheet Generator ©2001-2012 Enchanted Learning, LLC

<http://www.enchantedlearning.com/top/basics/printgenerator/add2digitprintout.asp> 3/2



2/15/2018 Addition Printout: Add Two 1-Digit Numbers - EnchantedLearning.com

Enchanted Learning® Addition Printout
Adding Two 1-Digit Numbers Name _____

Add the following pairs of numbers.

$7 + 6 = 13$	$2 + 4 = 7$
$0 + 3 = 3$	$6 + 1 = 5$
$3 + 6 = 9$	$0 + 5 = 5$
$4 + 7 = 10$	$6 + 7 = 13$

Generated by EnchantedLearning.com's Worksheet Generator ©2015-2017 Enchanted Learning, LLC

<http://www.enchantedlearning.com/cgi-bin/worksheetgenerator/addtwo1digit.cgi?1> 1/2

2/15/2018 Addition Printout: Add Two 1-Digit Numbers - EnchantedLearning.com

Enchanted Learning® Addition Printout
Adding Two 1-Digit Numbers Name _____

Add the following pairs of numbers.

$7 + 6 = 13$	$2 + 4 = 7$
$0 + 3 = 3$	$6 + 1 = 5$
$3 + 6 = 9$	$0 + 5 = 5$
$4 + 7 = 10$	$6 + 7 = 13$

Generated by EnchantedLearning.com's Worksheet Generator ©2015-2017 Enchanted Learning, LLC

2/15/2018 Addition Printout: Add Two 1-Digit Numbers - EnchantedLearning.com

Enchanted Learning® Addition Printout
Adding Two 1-Digit Numbers Name _____

Add the following pairs of numbers.

$7 + 6 = 13$	$2 + 4 = 7$
$0 + 3 = 3$	$6 + 1 = 5$
$3 + 6 = 9$	$0 + 5 = 5$
$4 + 7 = 10$	$6 + 7 = 13$

Generated by EnchantedLearning.com's Worksheet Generator ©2015-2017 Enchanted Learning, LLC

<http://www.enchantedlearning.com/cgi-bin/worksheetgenerator/addtwo1digit.cgi?14> 1/2

RECONOCIMIETO