

Strokes of AI: Creating Visual Magic in Real Time with MediaPipe and Streamlit.

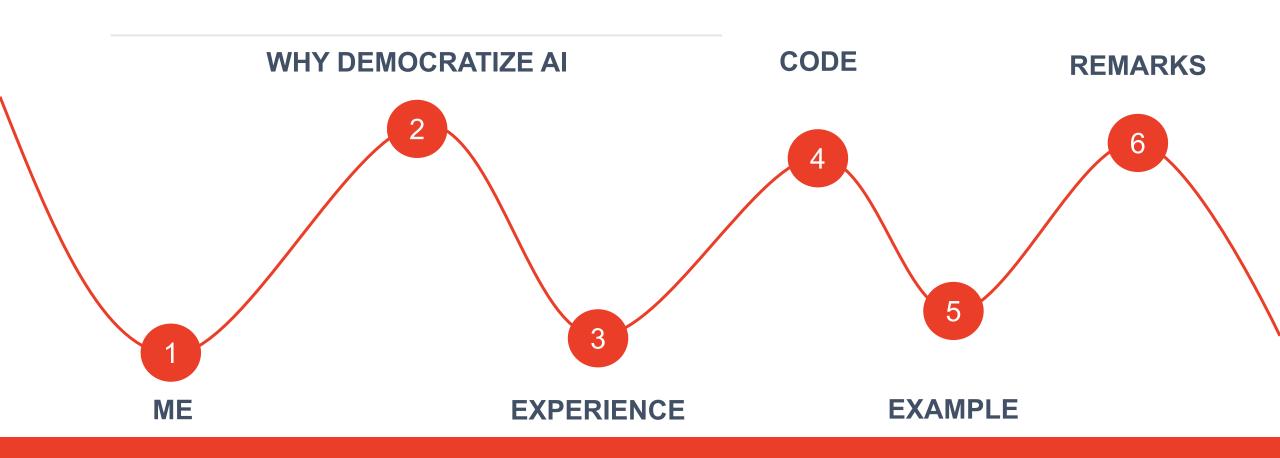
Adonai Vera - ML Engineer Subterra Al







## **Topics**







### Why Artificial Intelligence

"My personal story







### Why democratize Al

"Personal story

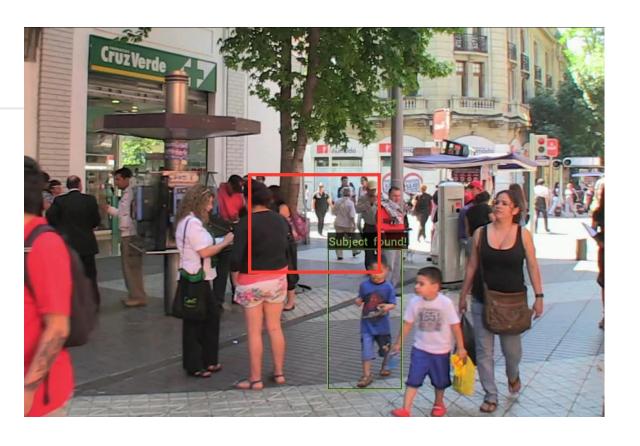






# Why democratize Al Government Industry































### I'm Adonai Vera. **A** Machine Learning Engineer based in Colombia

I have been a software developer, AI developer, AI Leader, and CTO in different companies which has given me a vision of creating AI products with a customer focus 🍣 Besides, I'm one of the 10 TensorFlow certified Developers for Google in Colombia, author of courses as "Curso Profesional de Redes neuronal con TensorFlow", and "Curso Profesional de computer vision con TensorFlow" in Platzi and winner of the hackathon Covid19 and Innovate2019 with Ecopetrol Colombia 🌟 ...

On this site we explore the strategies and tools that help us live happier, healthier, more productive lives 🖋





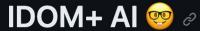
# What is Artificial Intelligence



It is the science and engineering of making intelligent machines, especially intelligent computer programs. It is related to the similar task of using computers to understand human intelligence, but AI does not have to confine itself to methods that are biologically observable.



John McCarthy







Strokes of Al: Creating Visual Magic in Real Time with MediaPipe and Streamlit. "Pinceladas de IA: Creando Magia Visual en Tiempo Real con MediaPipe y Streamlit" ∂

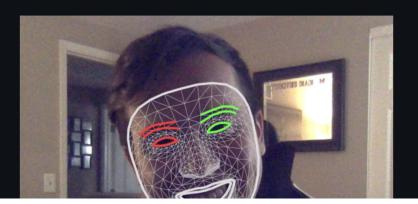
Teaching Academy with Al

#### Bienve

Note: This repository is for the Keras Community Day Perú

Sample page hosted on Heroku: tryit ... https://idomai.herokuapp.com/

MediaPipe ∂



















### Where do I start?

I don't know anything about Al



- Be part of the community.
- Try to be in a research team.
- Learn with projects.
- Share experiences.
- Register to daily tools as TECLA or Paper with Code Newsletter.
- Find a mentor



www.adonaivera.com





#### Look no further! Here's a list of 10 beginner-friendly projects to kickstart your journey.





Project Statement: Detect faces in real-time from a webcam feed.

Tools: OpenCV, Python

📠 Concepts: Haar Cascades, Image Processing

Difficulty Level: \*\*

A https://shorturl.at/IEHM8

A https://lnkd.in/eqU34QDE

#### 2 Color Filtering

Project Statement: Filter out a specific color from a video feed.

Tools: OpenCV. Python

Concepts: Color Spaces, Thresholding

Difficulty Level: \*\*

A https://lnkd.in/eqv2ffNi

#### 3 OCR Text Reader

Project Statement: Extract text from an image.

Tools: Tesseract, Python

Concepts: OCR, Image Preprocessing

Difficulty Level: \*\*\*

A https://lnkd.in/eDW6jE-h

A https://shorturl.at/wEIMO

#### 4 Object Counting 6 6

Project Statement: Count the number of objects of a certain type in an image.

Tools: OpenCV, Python

Concepts: Contour Detection, Image Segmentation

Difficulty Level: \*\*

A https://shorturl.at/bIFVY

#### 5 Handwriting Recognition 🥧

Project Statement: Recognize handwritten digits from an image. Project Statement: Recognize human emotions from facial

Tools: TensorFlow, Python

Concepts: Neural Networks, Image Classification

Difficulty Level: \*\*\*

A https://lnkd.in/eDcqQutc

https://lnkd.in/eDBFNQ6m

A https://shorturl.at/yCFMN

#### 6 Image Stitching

Project Statement: Stitch two overlapping images together to create a panorama.

Tools: OpenCV, Python

Concepts: Feature Matching, Homography

Difficulty Level: \*\*\*

https://shorturl.at/kGMO8

#### 7 QR Code Reader

Project Statement: Read QR codes from a webcam feed.

Tools: OpenCV, Python

Concepts: Pattern Recognition, Decoding

Difficulty Level: \*\*

Phttps://shorturl.at/byIWY

A https://shorturl.at/knpKM

#### 8 Traffic Sign Recognition

Project Statement: Recognize traffic signs from images.

Tools: TensorFlow, Python

Concepts: Image Classification, Neural Networks

Difficulty Level: \*\*\* A https://shorturl.at/tEJKR

#### 9 Emotion Recognition $\stackrel{\square}{=}$

expressions in a video feed.

Tools: OpenCV, TensorFlow, Python

Concepts: Facial Recognition, Classification

Difficulty Level: \*\*\*

A https://lnkd.in/eiJxD9QM

#### 🔟 Background Subtraction 🥮 🚫

Project Statement: Remove the background from a video feed.

Tools: OpenCV, Python

Concepts: Thresholding, Image Segmentation

Difficulty Level: \*

A https://shorturl.at/fmAIN

https://shorturl.at/ELOPQ





How can we take action to reduce barriers to accessing artificial intelligence and make it more accessible to everyone?



