

YOGA



NAMASTE

Welcome

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YOGA

ASANA RECOGNITION USING DEEP LEARNING



YOGA (योग)

âsana
(body posture)

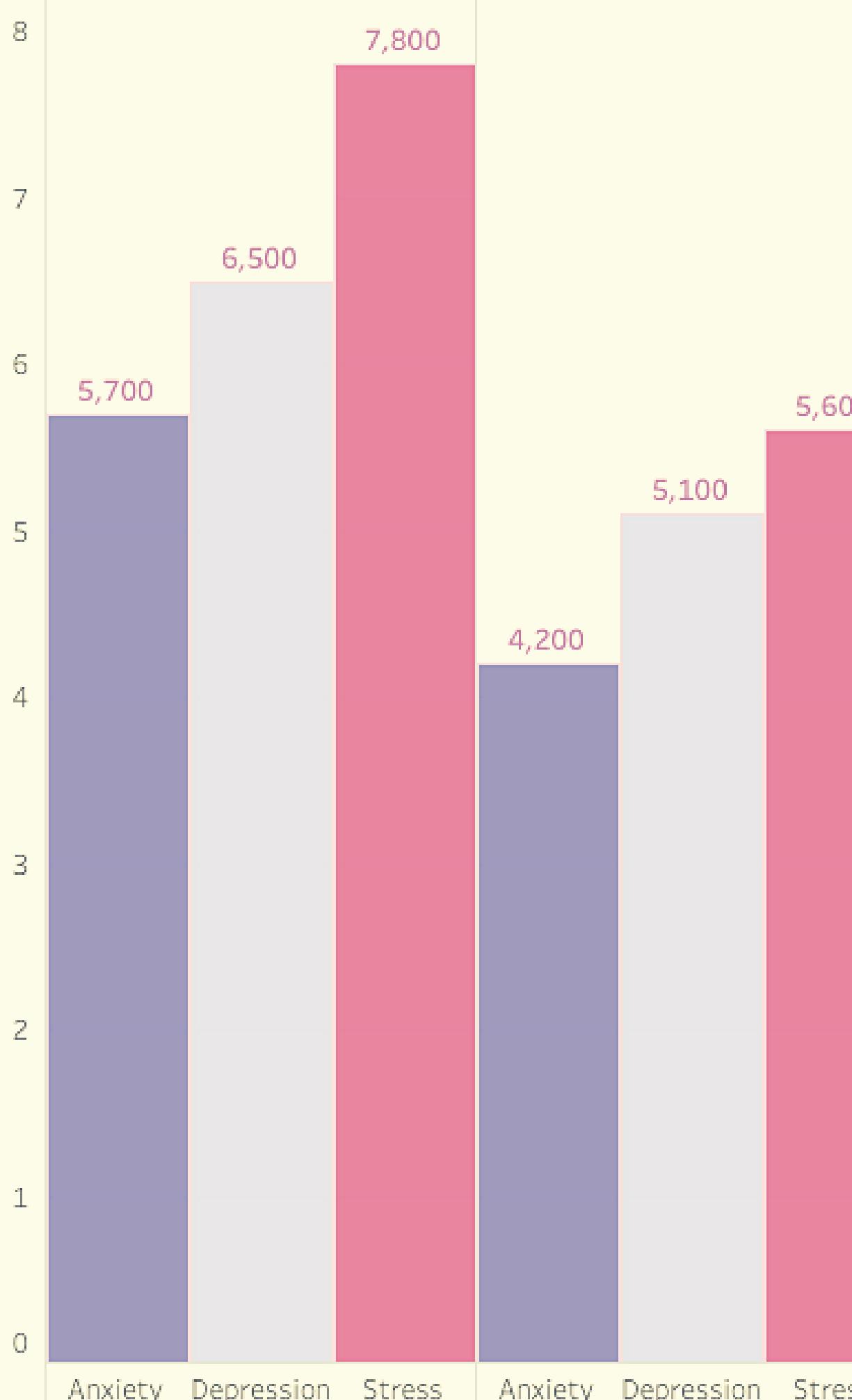
prânâyâma
(breathing)

dhyana
(meditation)



Before Yoga

After Yoga



HOW YOGA CAN CHANGE YOUR LIFE?

- YOGA ALLIANCE: A COMPARISON OF THE AVERAGE SCORES OF STRESS, ANXIETY, AND DEPRESSION BEFORE AND AFTER THE INTERVENTION OF 12 SESSIONS OF YOGA PRACTICE SESSION.
- SINCE THE BEGINNING OF THE PANDEMIC, 48% OF THE GROUP (500 PERSONS) HAS BEEN THROUGH IMMENSE STRESS.
- 30% LESS STRESS SYMPTOMS AFTER YOGA LESSONS.
- 70% OF THE PEOPLE FELT BETTER EMOTIONALLY.
- SIGNS OF DEPRESSION DECREASED IN MORE THAN A 30% IN ALL THE CASES.

MAIN

yoga
PURPOSES OF THIS PROJECT

ASANA RECOMMENDATION SYSTEM (MOCK)

SYSTEM BASED ON AGE,
MENTAL HEALTH AND
PHYSICAL CONDITION

ASANA RECOGNITION MODEL

YOGA POSE RECOGNITION
MODEL (DEEP LEARNING)





YOGA POSE RECOGNITION MODEL (DEEP LEARNING) 5 ASANAS (YOGA POSTURES)



MAIN TOOLS USED FOR YOGA POSE RECOGNITION

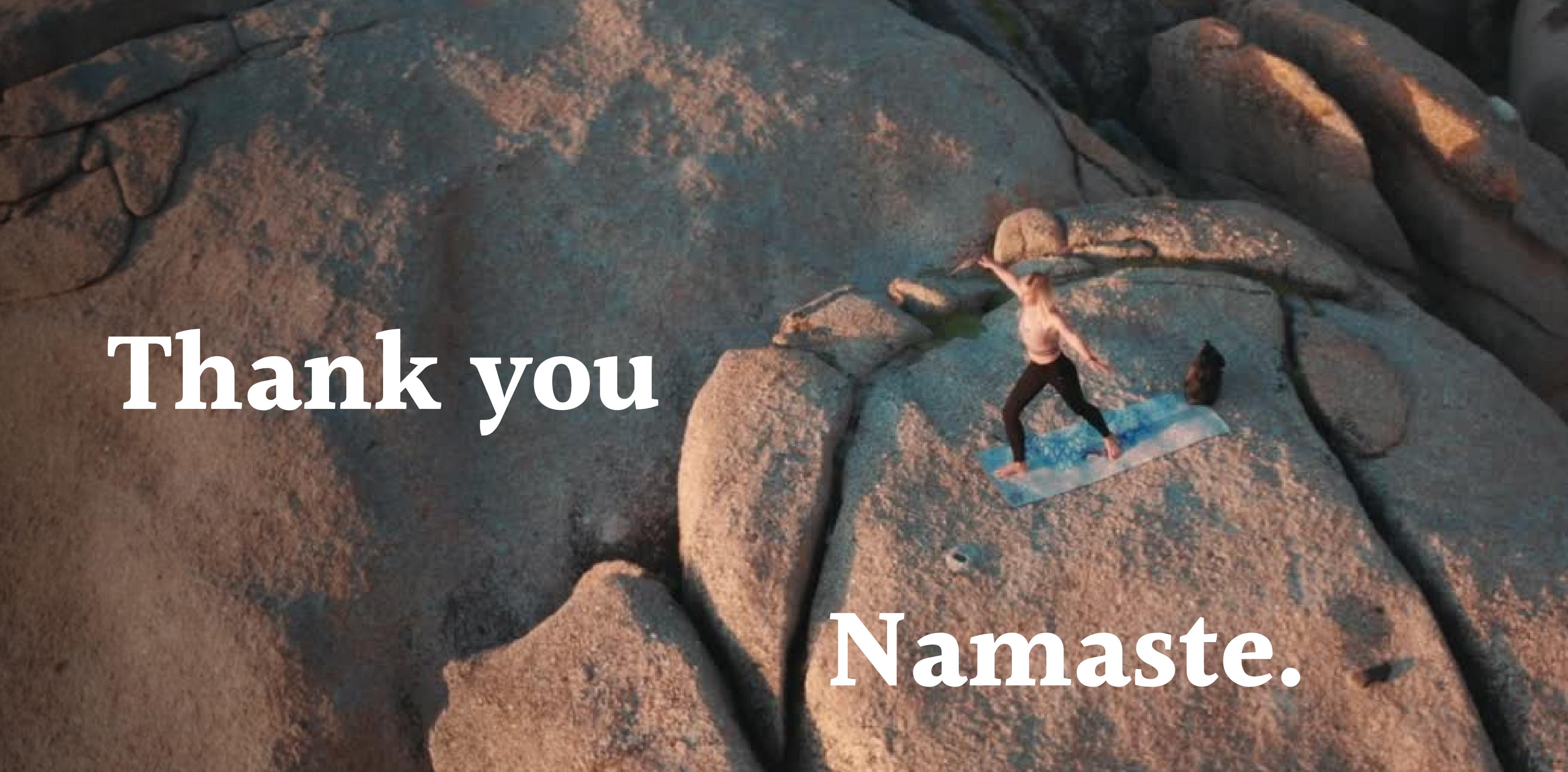
- TENSORFLOW
 - AUTOTUNE
- KERAS
 - DENSE
 - DATA AUGMENTATION
 - BATCHNORMALIZATION
 - SEQUENTIAL
 - MODEL CHECKPOINT
 - MAXPOOLING2D
- NUMPY
- TRAIN/VALIDATION
 - MORE THAN 1000 PICTURES OF EACH POSE (SKIMAGE, IO COMPRESSOR)





MISSION

- MAINTAINING A REGULAR YOGA PRACTICE CAN PROVIDE PHYSICAL AND MENTAL HEALTH BENEFITS
- MODEL IS CAPABLE OF DETECTING A CERTAIN ASANA AND ESTIMATING THE EXACTLY YOGA POSE
 - HIGH LEVEL OF CONFIDENCE (MORE THAN 85% OF ACCURACY ON AVERAGE)
- YOGA AS A WAY OF LIFE.
 - "YOGA IS NOT ABOUT TOUCHING YOUR TOES. IT IS WHAT YOU LEARN ON THE WAY DOWN."



Thank you



Namaste.



Go to the demo

