

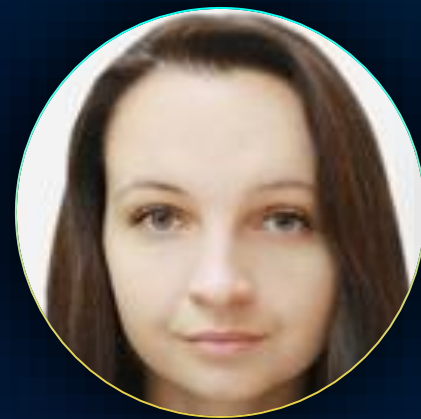
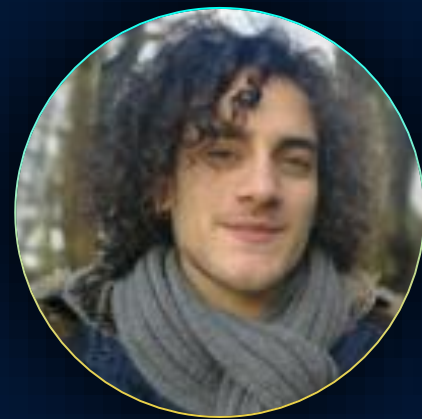
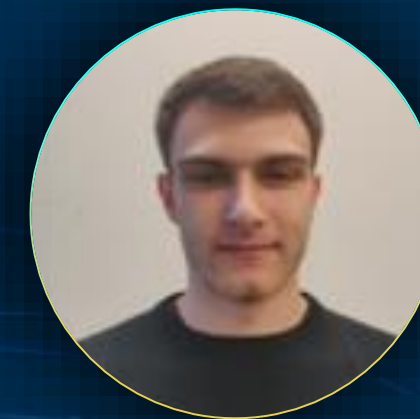
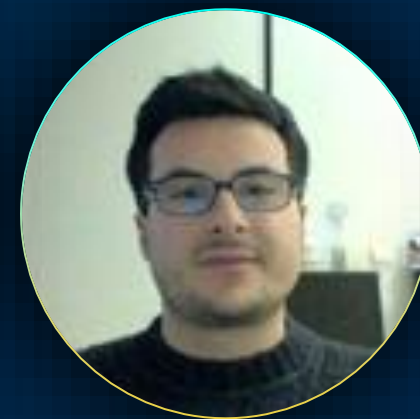
Emanuele Frontoni

# INTELLIGENZA ARTIFICIALE E CREATIVITÀ UMANA

**VR*i***  
vision robotics  
artificial  
intelligence



**vrai**  
vision robotics  
artificial  
intelligence



UNIVERSITÀ  
POLITECNICA  
DELLE MARCHE



**unimc**  
UNIVERSITY OF MACERATA



**Sant'Anna**  
Scuola Universitaria Superiore Pisa



ISTITUTO  
ITALIANO DI  
TECNOLOGIA

**CRISP**



**PROMOTICA**  
PEOPLE DRIVEN COMPANY

people | sustainability | innovation  
**PROTAGONIST**





# CONSAPEVOLEZZA



# INTELLIGENZA ARTIFICIALE

## Conferenza di Dartmouth 1956

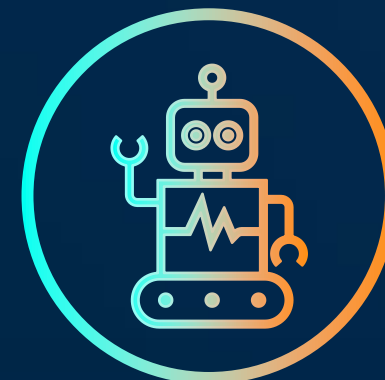
John McCarty ha coniato il termine  
Artificial Intelligence

Trenchard More, John McCarthy, Marvin Minsky,  
Oliver Selfridge, Ray Solomonoff





**Erano molto ottimisti ...**



**“Nel 1968 un computer sarà  
il campione del mondo di scacchi”**

Simon e Newell, 1958

**“In 20 anni, i computer saranno  
in grado di fare ogni attività  
che gli umani possono fare”**

Simon, 1965





# PER GLI SCACCHI, È STATO NECESSARIO ASPETTARE IL 1997

DEEP BLUE, IBM







\$24,000

Who is Stoker?  
(1 FOR ONE WELCOME OUR  
NEW COMPUTER OVERLORDS)

\$77,147

Who is Bram  
Stoker?

\$21,600

WHO IS  
BRAM STOKER?

# PER LA COMPRENSIONE DEL LINGUAGGIO NATURALE, FINO AL 2011

WATSON, IBM



# Perchè tanto rumore dopo quasi 70 anni?

## Potenza computazionale dei computer che cresce in modo esponenziale

- Raddoppia ogni 18 mesi  
legge di Moore, 1965

## Immense quantità di dati

- Da usare come esempi per apprendere cosa fare

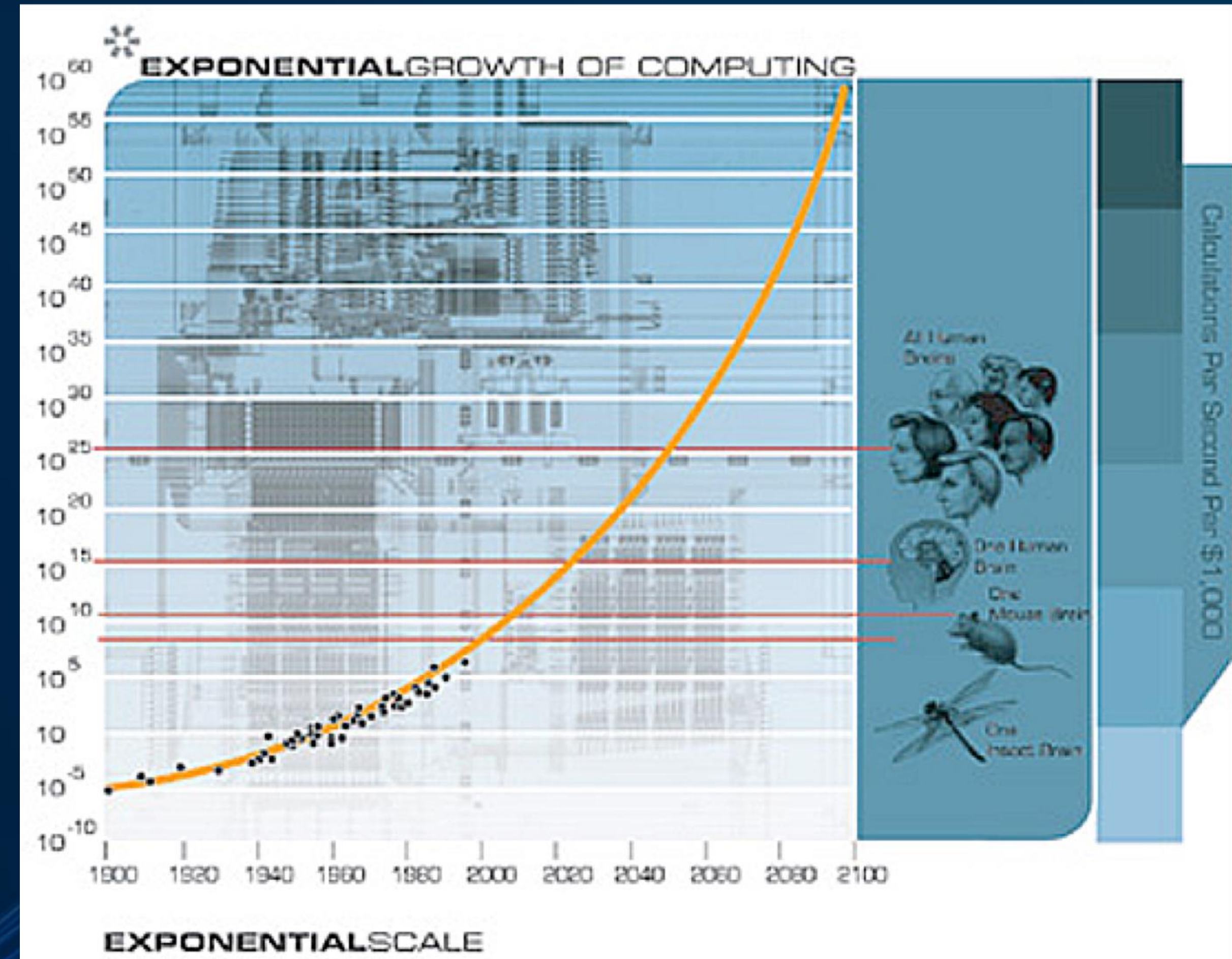
## Algoritmi migliori

- Es.: deep learning

YouTube: 400 hours of video uploaded every minute

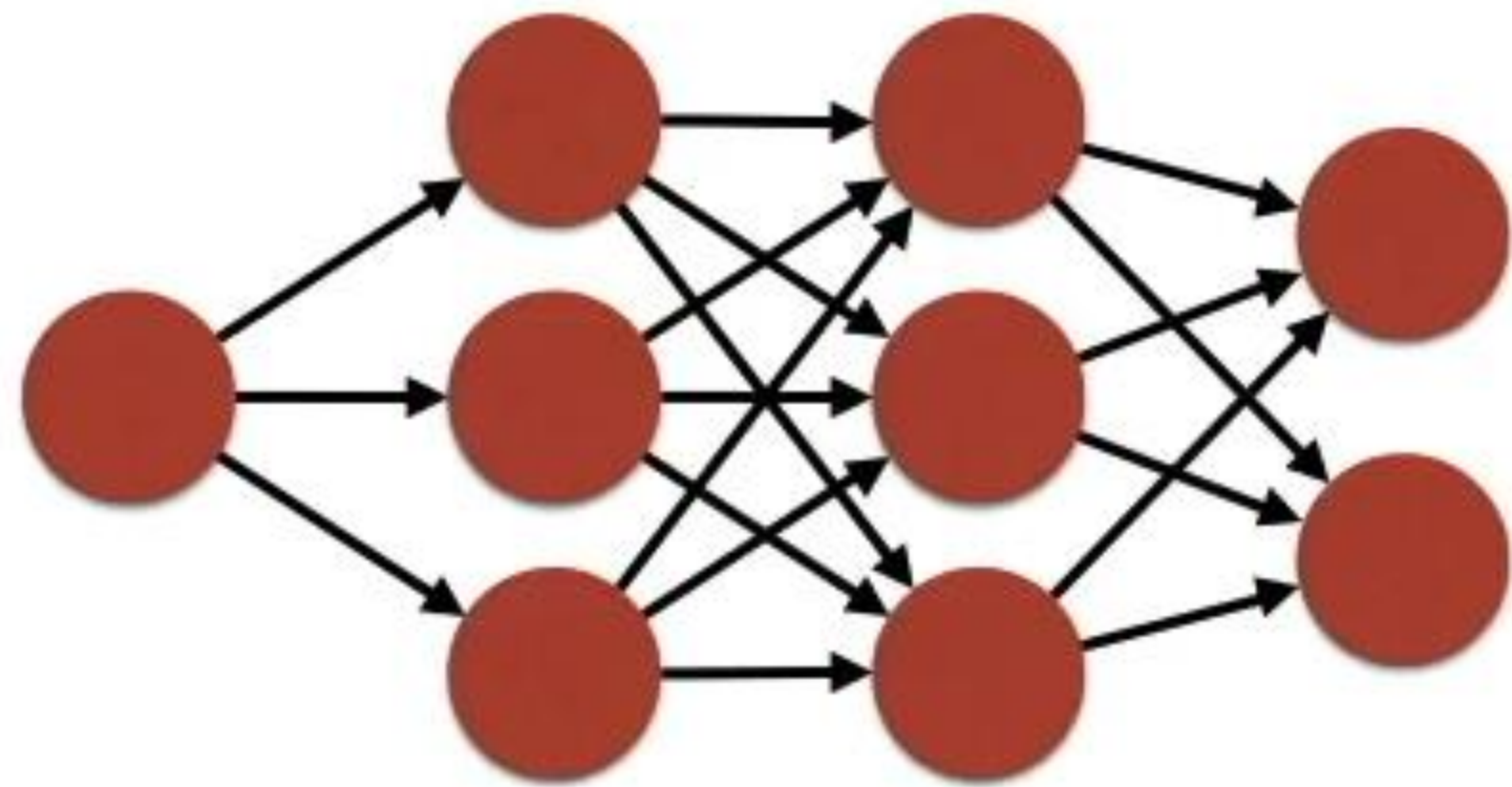
Walmart: 2.5 petabytes of customer data hourly

Facebook: 350 million images uploaded daily

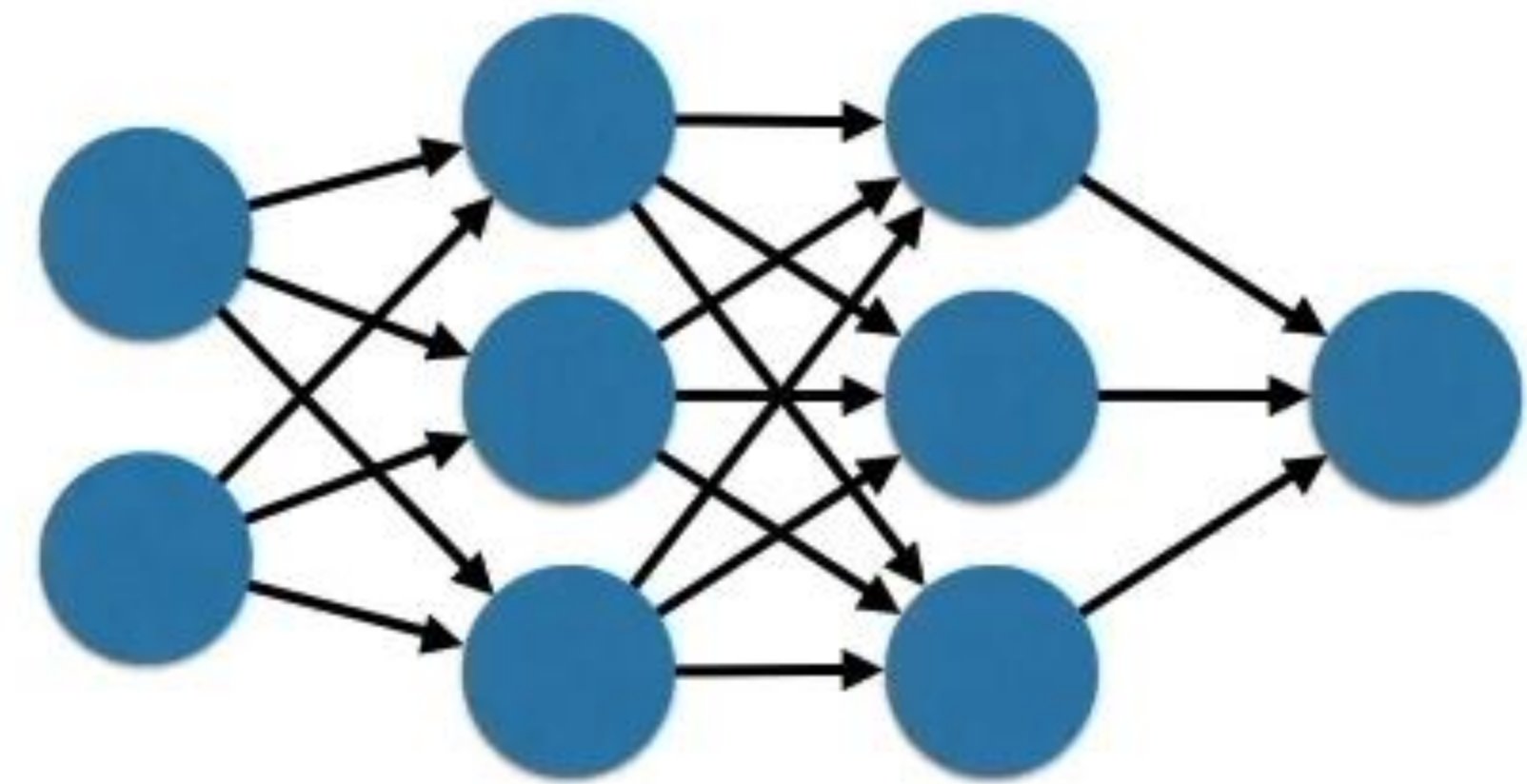




# AI GENERATIVA



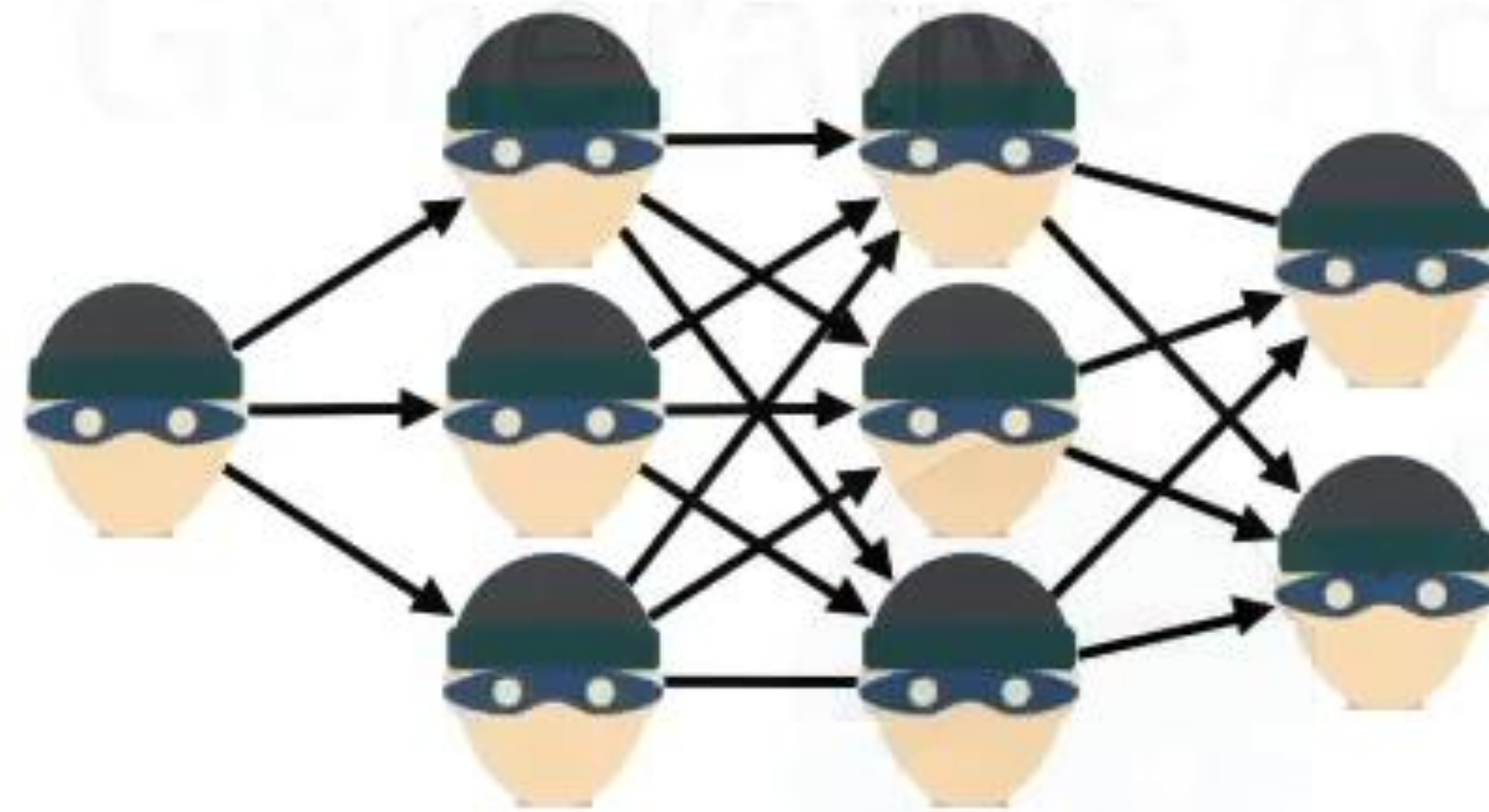
Generator



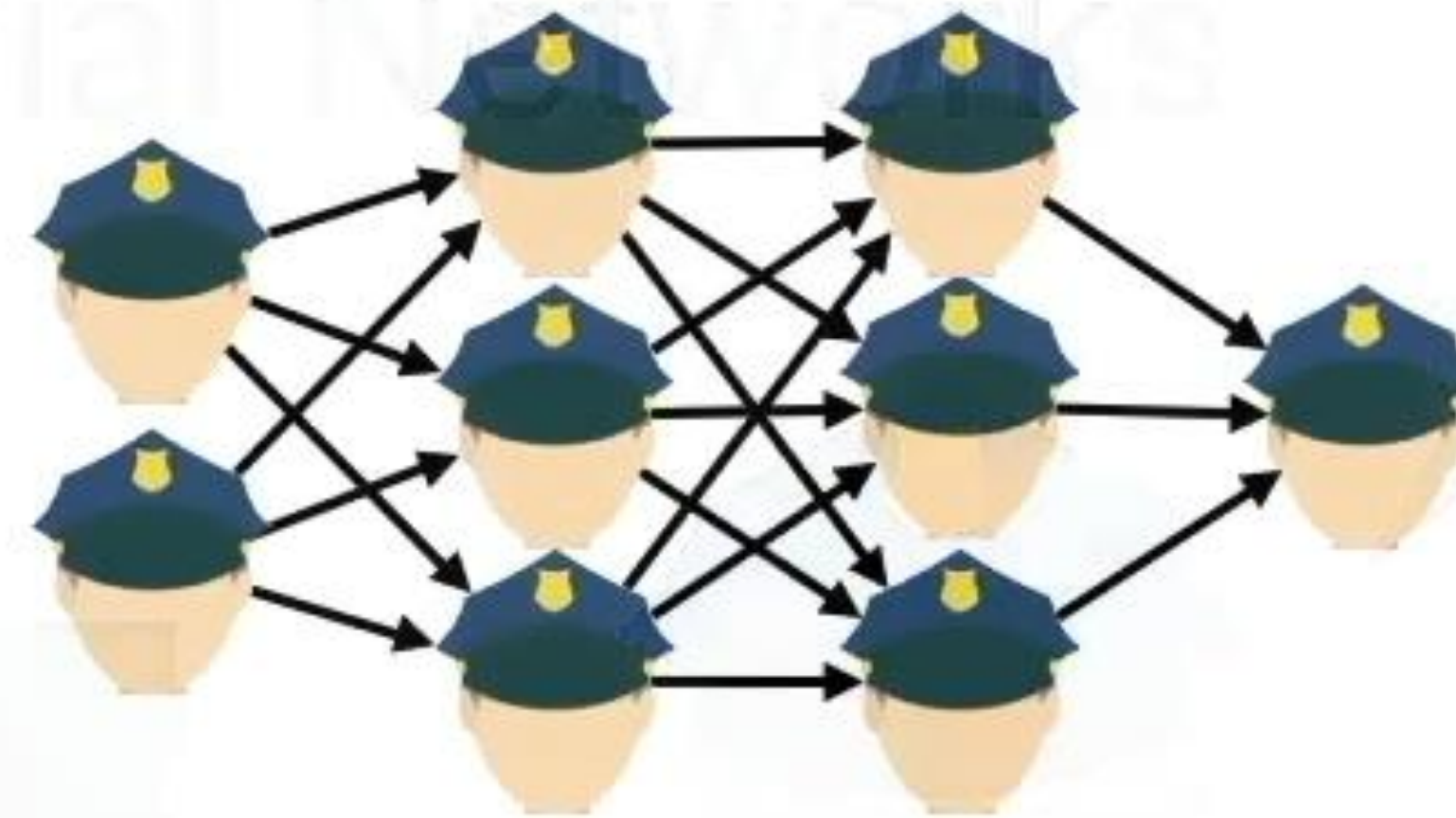
Discriminator



## Generator



## Discriminator



## Real images









COLLECTED DATA

People  
16.323.710

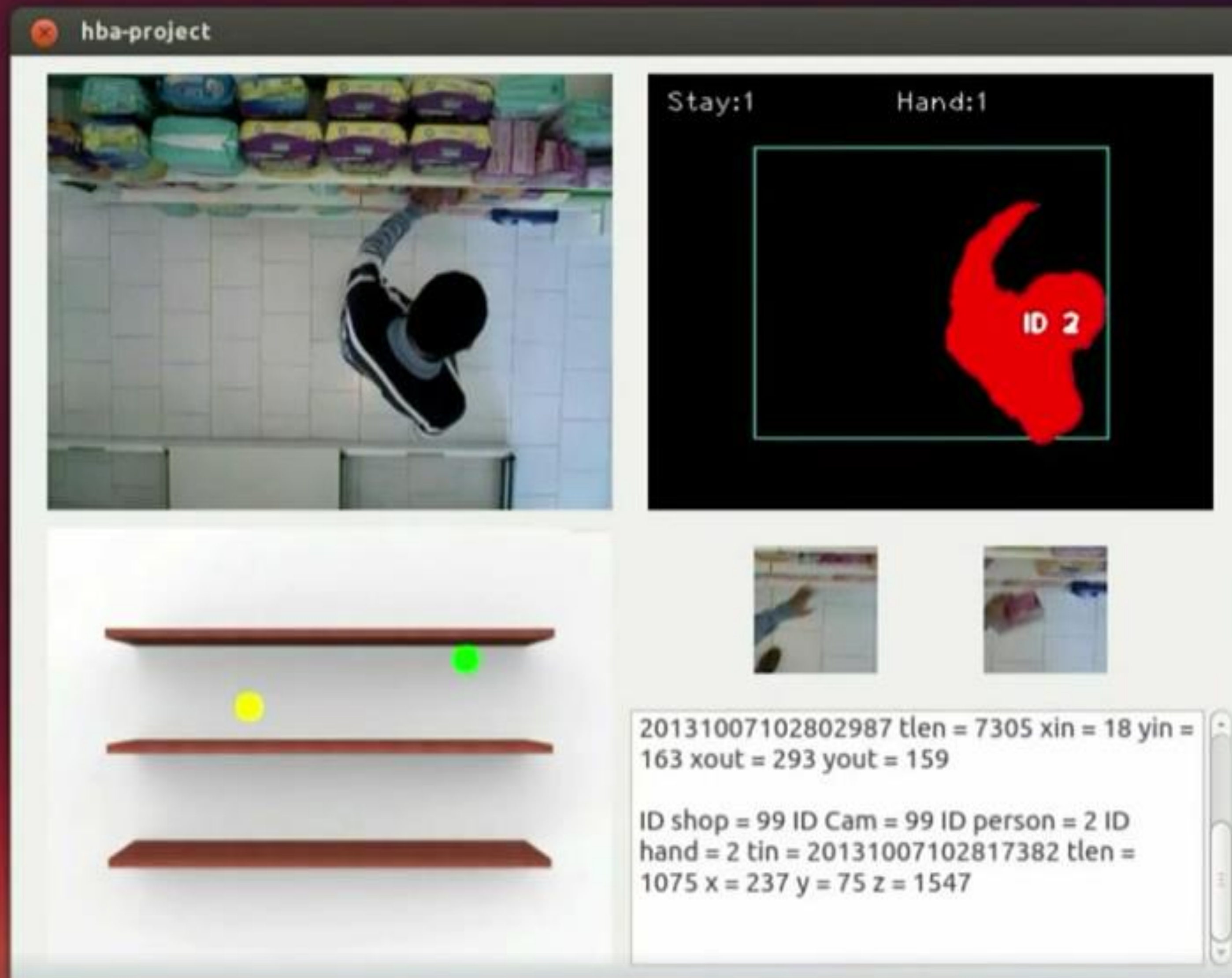
Interactions  
1.804.788



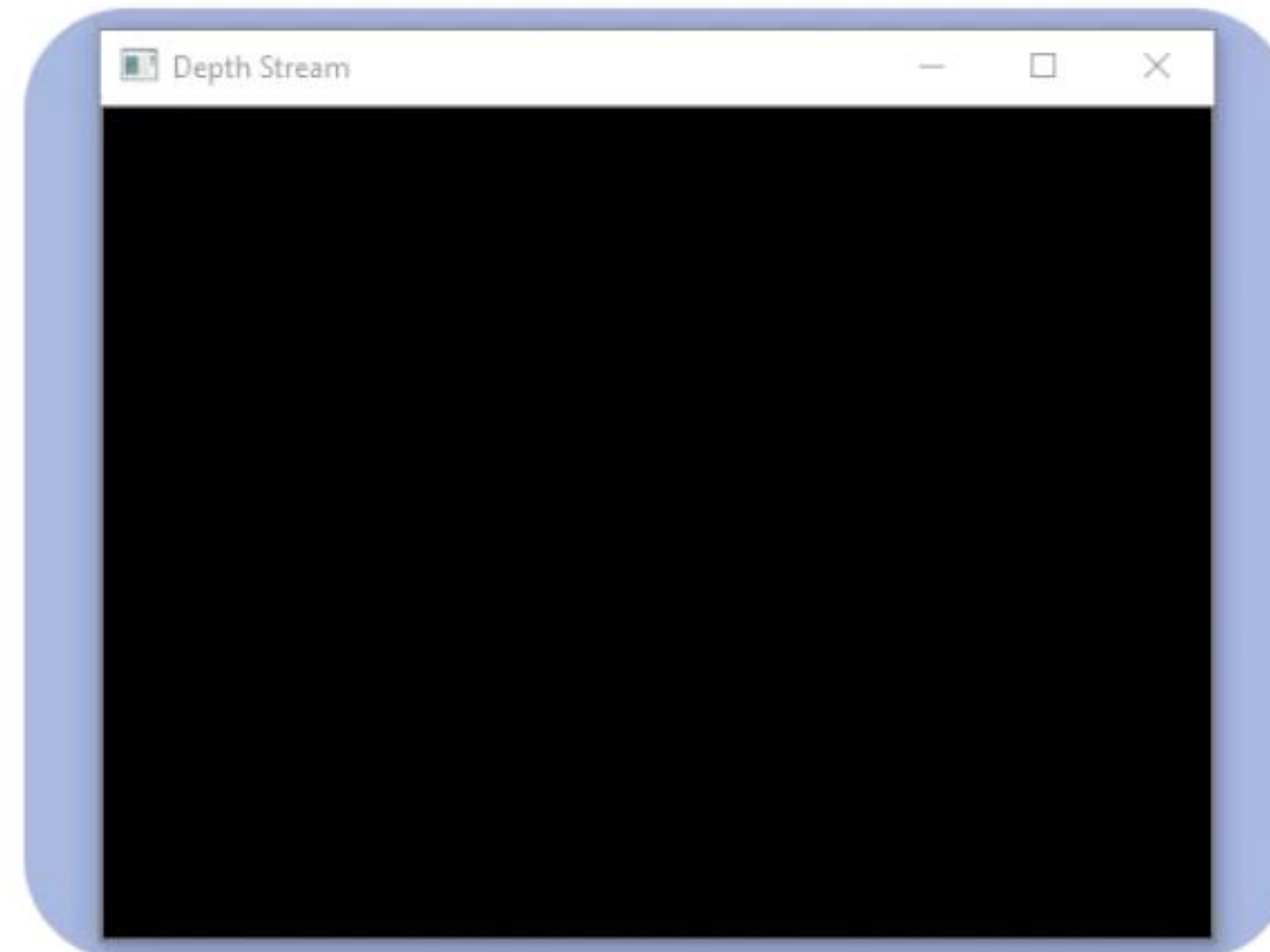
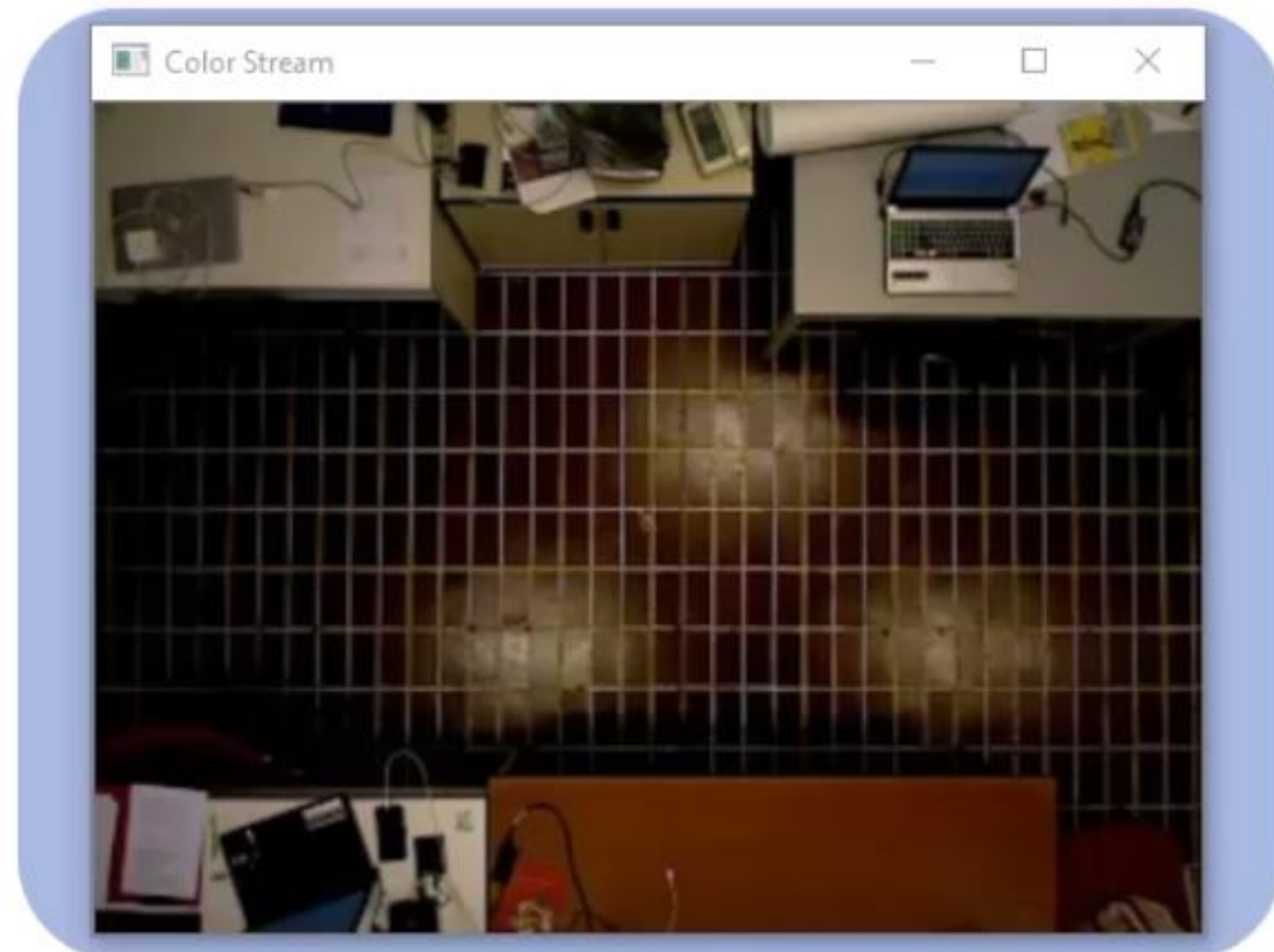












Person Detected



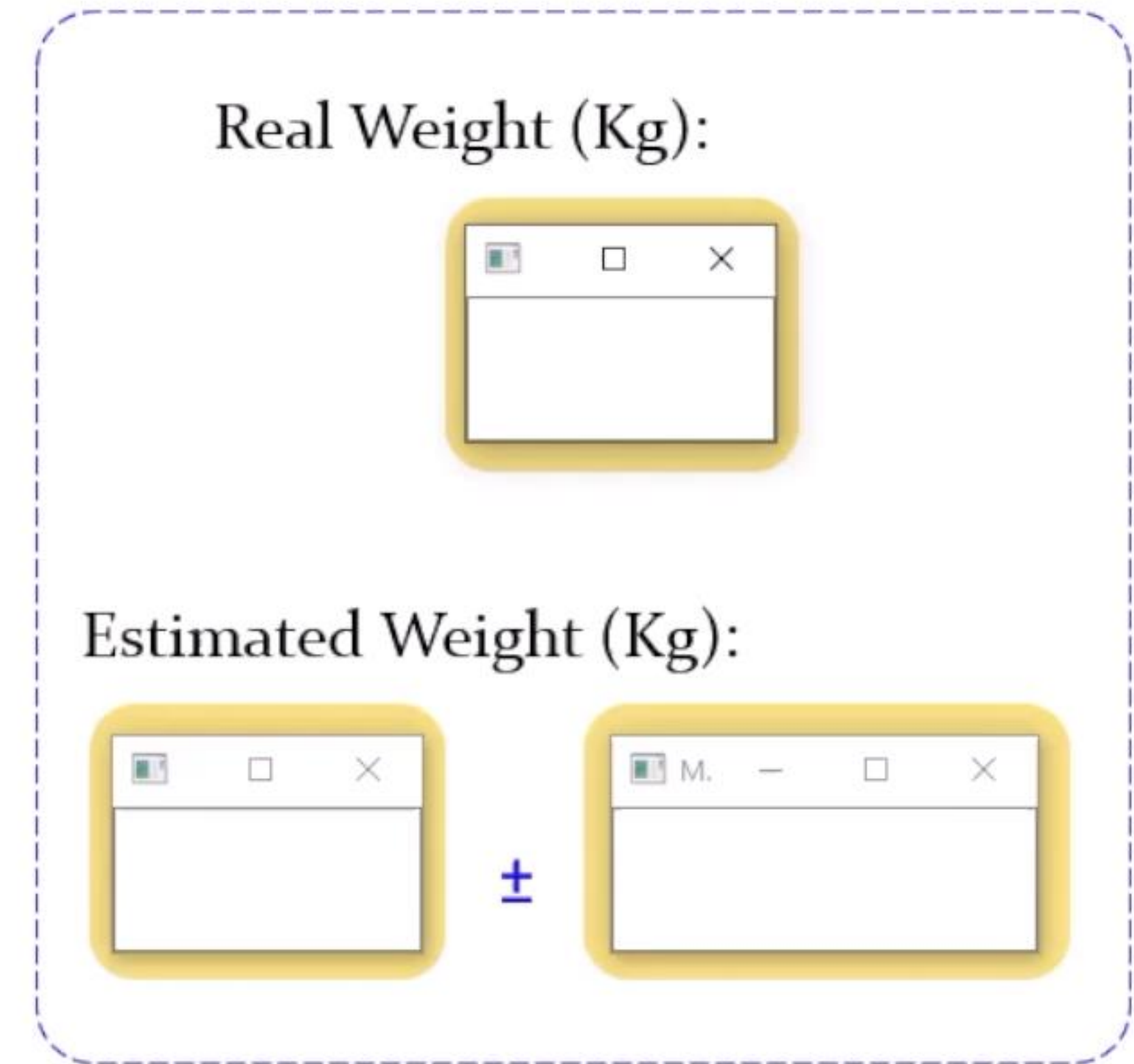
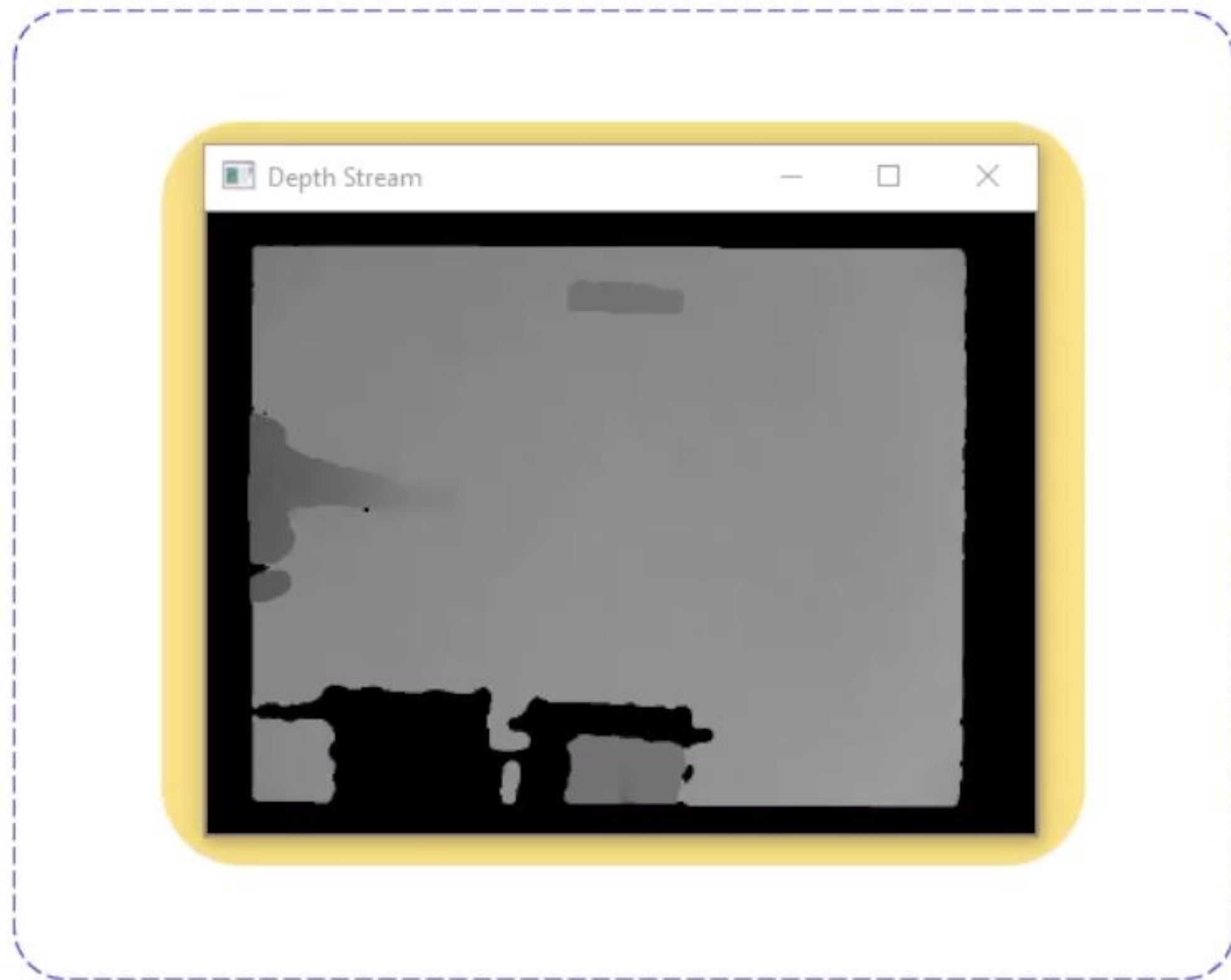
ID:



**TVPR2**

Top-View Person Re-Identification v2 Dataset





Weight Estimation



# MULTIMEDIA

## SHELF MANAGEMENT





From

05/30/2023

To

05/30/2023

Master

2023-05-30 15:36:27 - Showroom - GLAB - SMARTBOX RETAIL - B

Slave

2023-05-30 15:50:35 - Showroom - GLAB - SMARTBOX RETAIL - B

Thr

Plano Compliance

Take New Picture

Plano Compliance

Show Interactions

Interactions



Excel

Search:

| ROW | COLUMN | EAN           | DESCRIPTION          | OOF | OOS | SWITCH | DESCRIPTION |
|-----|--------|---------------|----------------------|-----|-----|--------|-------------|
|     |        |               | CARNAROLI            |     |     |        |             |
| 3   | 2      | 8076809532877 | BARILLA CASERECCE    | 1   | 1   |        |             |
| 3   | 5      | 5000159317955 | M&Ms Peanut 500g     | 1   | 1   |        |             |
| 3   | 11     | 8032993000042 | null                 | 0   | 0   |        |             |
| 4   | 3      | 8000965050203 | CONSILIA TRE CEREALI | 1   | 1   |        |             |
| 4   | 9      | 8076802085912 | BARILLA PIPE RIGATE  | 1   | 0   |        |             |



# FROM DSS & DASHBOARDS TO PROMPT-BASED DECISIONS

## PROMPT

«I need a planogram for a Pet Food category with 1,33 mt of shelf on 8 levels; avg visitors per day 400; max SOOS 3%; centryal lines to MARS SKUs»

From: 05/02/2022 To: 10/10/2022 Audit Check: 2022-06-14 11:20:17 - SPAZIO CONAD - CAFFE - CAFFE 5

BRAND: cameo SOS: 25% Range Compliance: 78 % Shelves: 8 OOS LEVEL: 3%

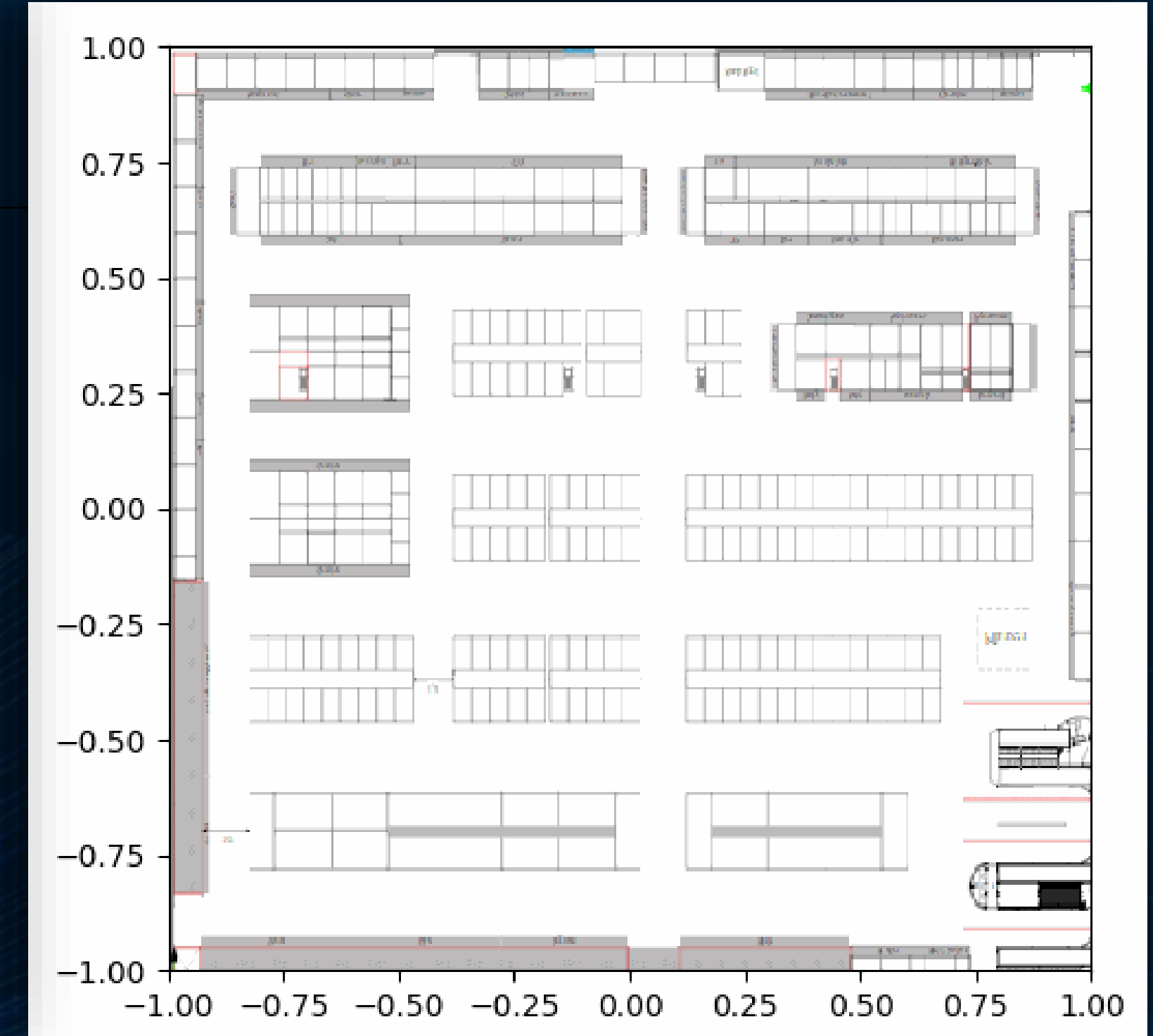
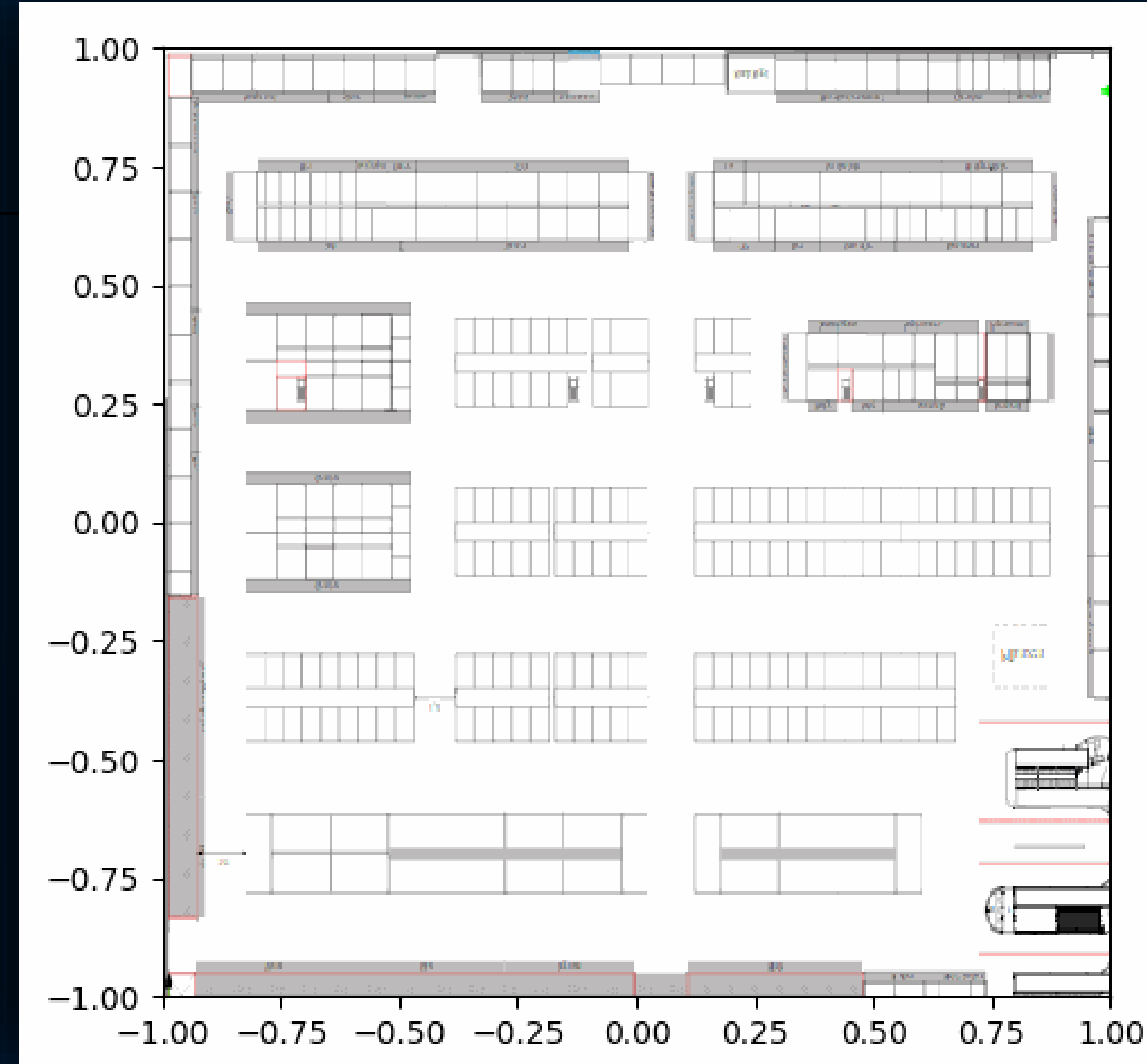
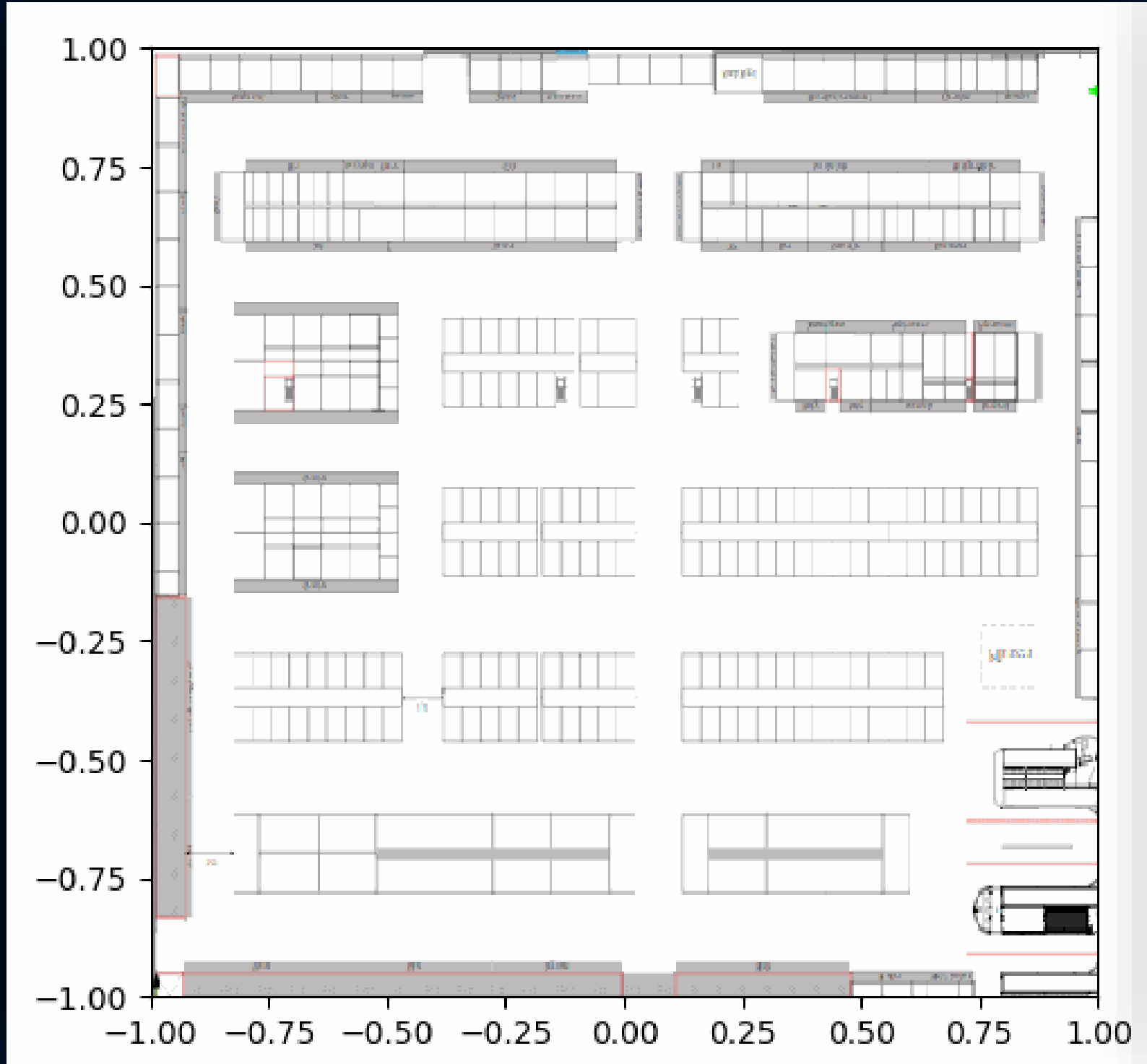
Excel

| EAN           | DESCRIPTION                                                | FACINGS |
|---------------|------------------------------------------------------------|---------|
| 8000550503299 | Nestlé Orzoro Orzo moka Orzo Macinato Astuccio 500g        | 4       |
| 3175681250673 | Orzo Bimbo solubile 120g                                   | 2       |
| 8006235002507 | Orzo Mondo Orzo macinato 500 g                             | 1       |
| 8006235000503 | Orzo tre mori macinato 500g                                | 1       |
| 8006235008400 | Orzo Mondo all anice 500 g                                 | 2       |
| 7613035530799 | Nestlé Nesquik 30% meno zuccheri 350g                      | 2       |
| 8000550503473 | Nestlé Orzoro Orzo solubile Barattolo 120g                 | 2       |
| 8000300215397 | Nestlé Orzoro Orzo e cacao solubile 180g                   | 2       |
| 8000300123296 | Nestlé Orzoro Orzo e caffè solubile 120g                   | 2       |
| 8000550502827 | Nesquik opti-start Cacao Solubile Per Latte Barattolo 500g | 2       |
| 8031848002798 | null                                                       | 2       |







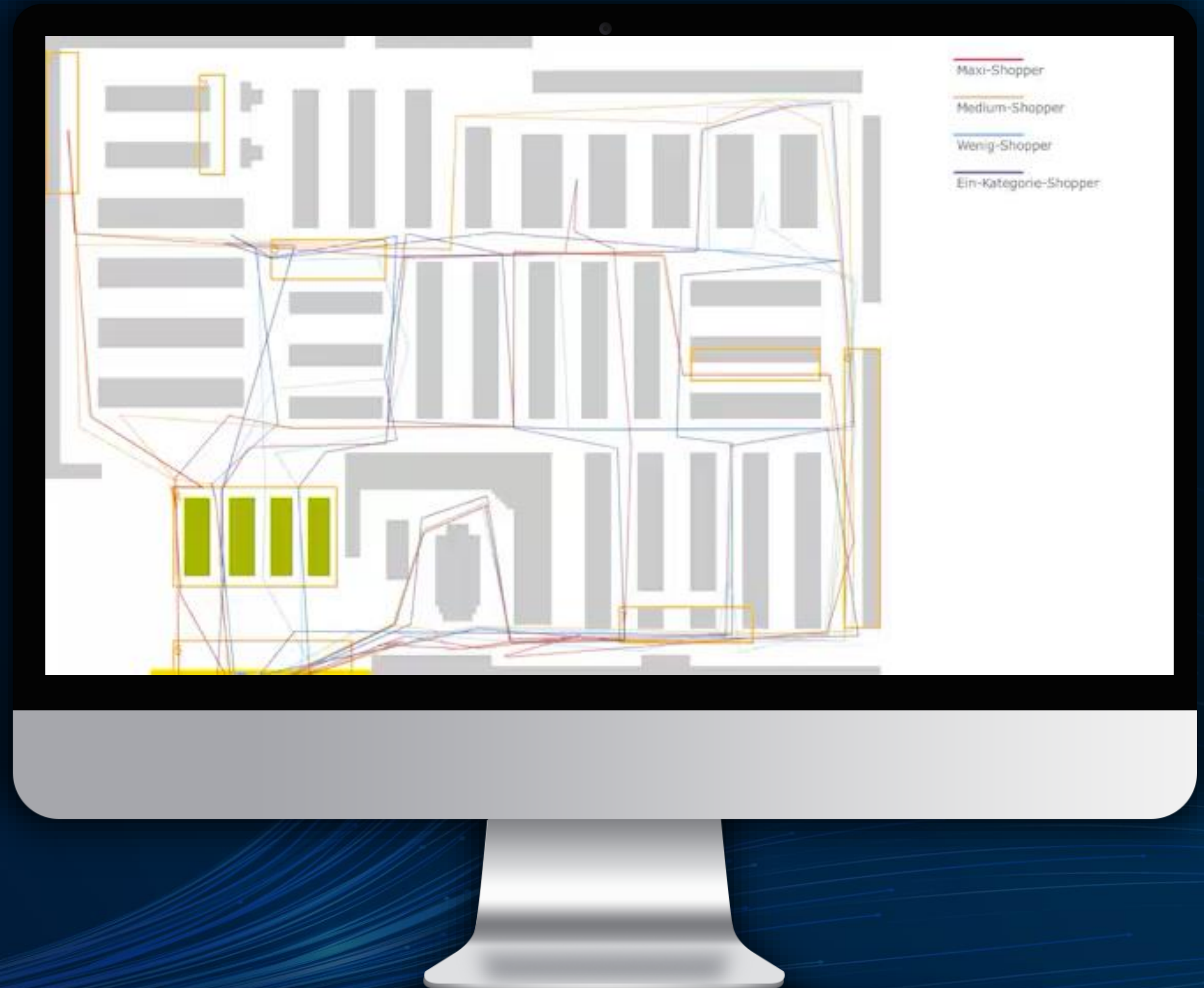




# STORE SIMULATOR

## PROMPT

«Generate 100 consumers per cluster in this store design given the following category placement»

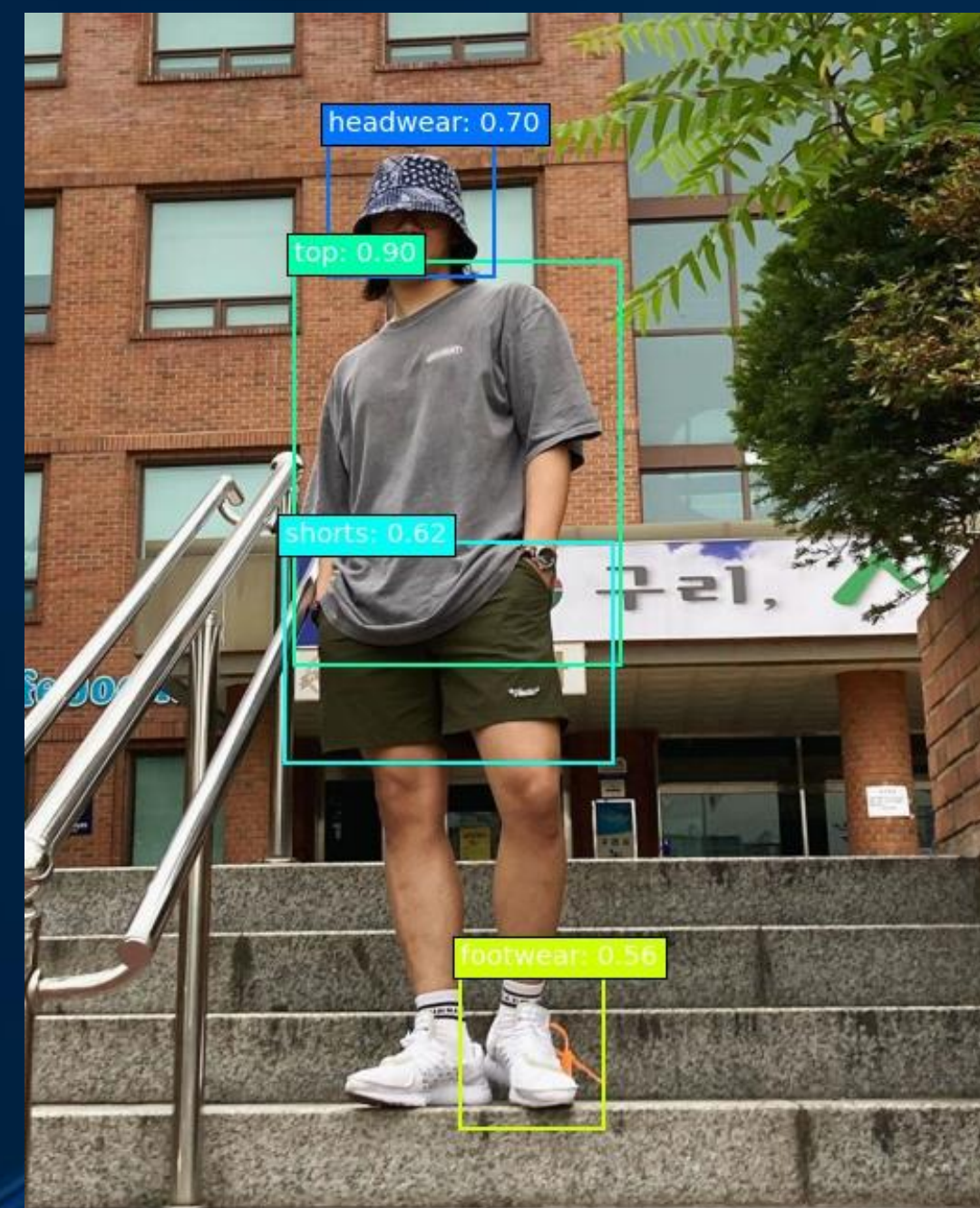




# TRENDS & STYLES

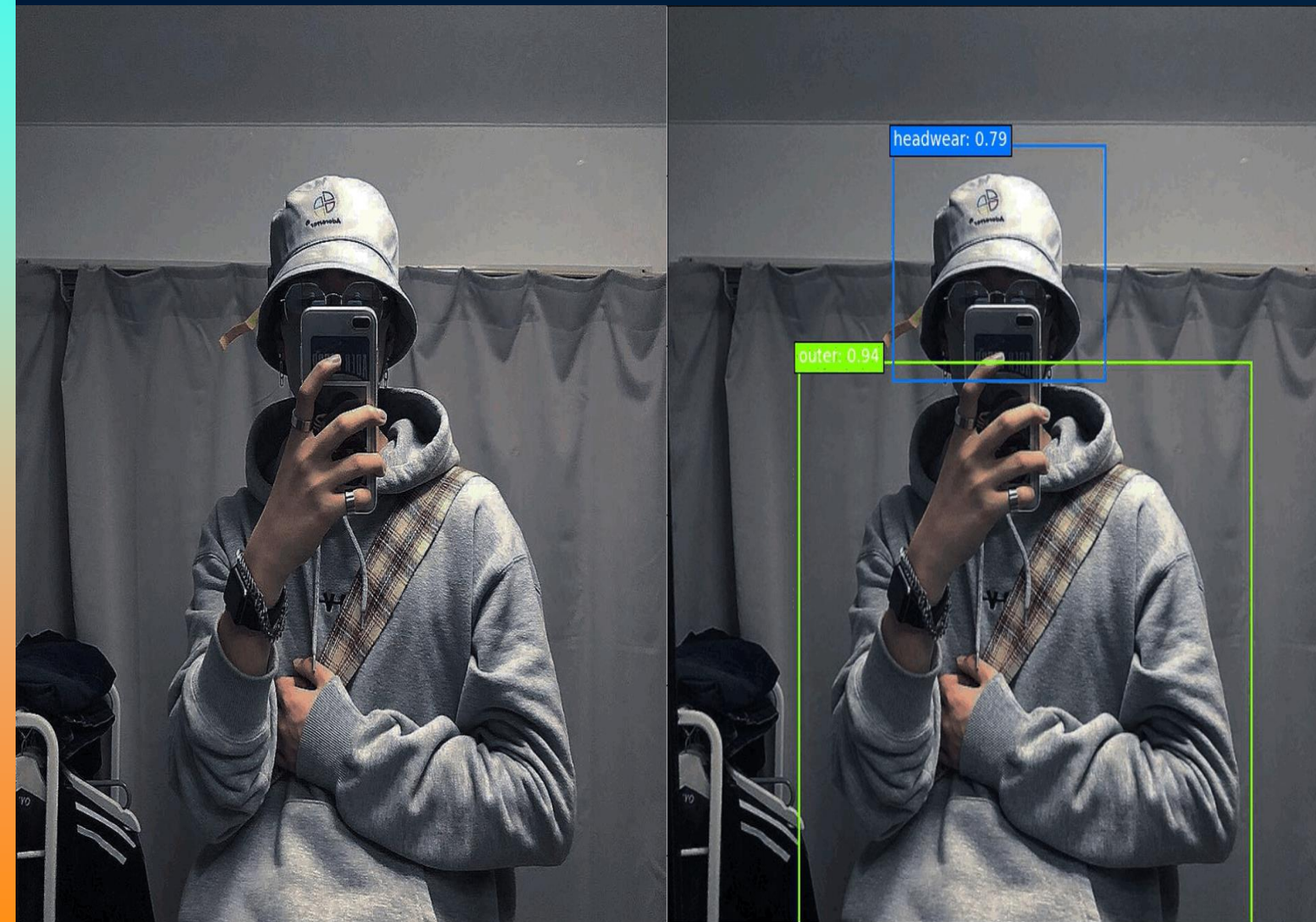


80.000  
images/h





# #outfit



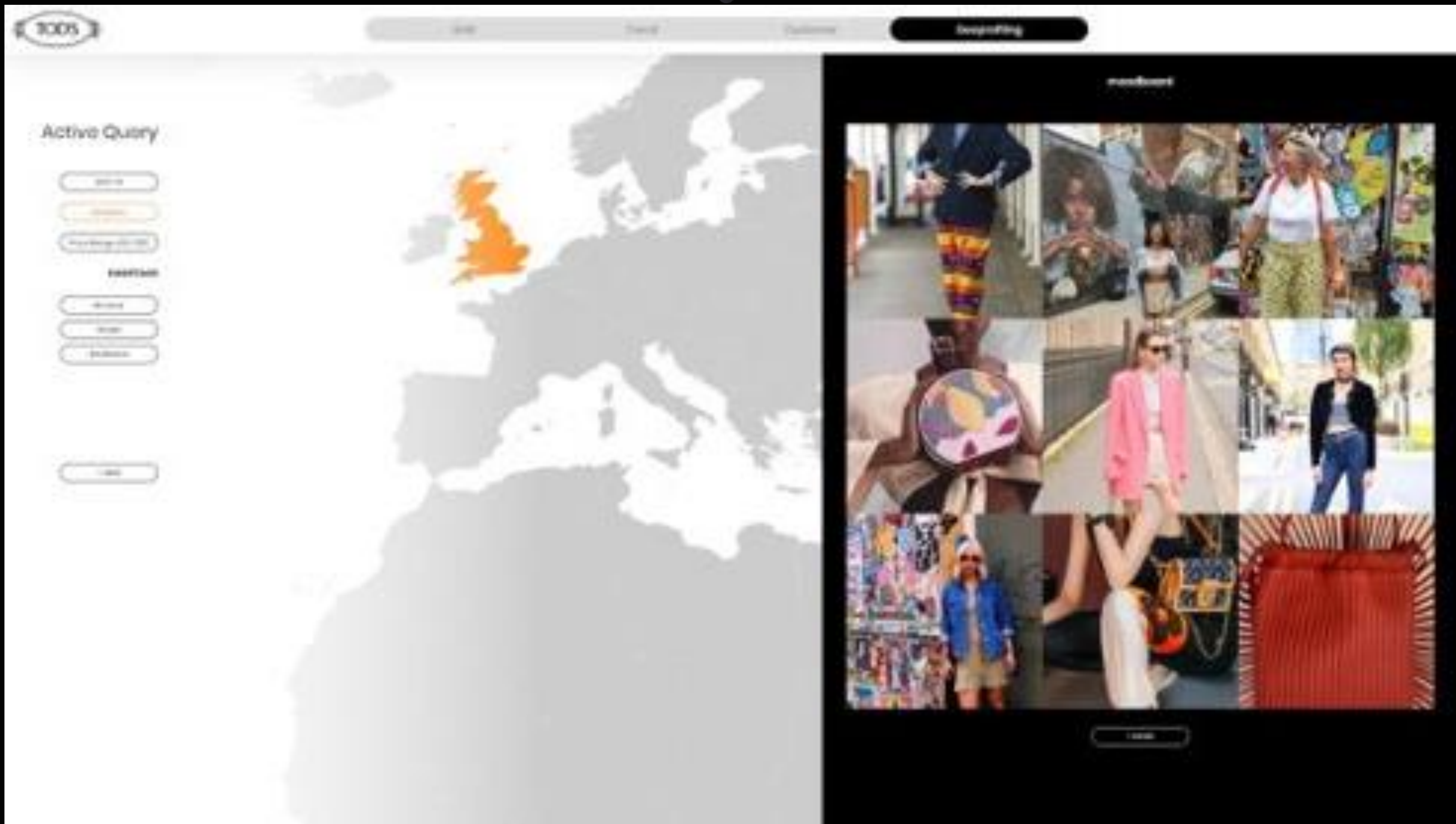
# #streetoutfit



# #streetstyle













[Link al video 'Dona la tua voce'](#)



people | sustainability | innovation

# PROTAGONIST