

cloud.mongodb.com/v2/68ba7c7d289c995ea2f7e953#/metrics/replicaSet/68ba7d634978791c0c838fc3/explorer/PDT\_DB/Collection\_01/find

GmailMapsYouTubeNewsTranslateGenerative AI

AtlasMaithri.V's ...Access ManagerBillingAll ClustersGet HelpMaithri.V

PDTData ServicesCharts

OverviewDATABASEClustersSERVICESAtlas SearchStream ProcessingTriggersMigrationData FederationSECURITYQuickstartBackupDatabase AccessNetwork Access

MAITHRI.V'S ORG - 2025-04-11 > PDT > DATABASES

ClusterO

VERSION8.0.13REGIONAWS Mumbai (ap-south-1)

OverviewReal TimeMetricsCollectionsAtlas SearchQuery InsightsPerformance AdvisorOnline Archive

DATABASES: 3COLLECTIONS: 10PREVIEWNew Data ExplorerVISUALIZE YOUR DATAREFRESH

+ Create Database

Q Search Namespaces

PDT\_DBCollection\_01sample\_analyticssample\_mflix

PDT\_DB.Collection\_01TIMESERIES

STORAGE SIZE: 36KBLOGICAL DATA SIZE: 2.78KBTOTAL DOCUMENTS: N/AINDEXES TOTAL SIZE: 0B

FindIndexesAggregationSearch Indexes

Generate queries from natural language in Compass

INSERT DOCUMENT

FilterType a query: { field: 'value' }ResetApplyOptions

QUERY RESULTS: 181-183 OF 183

Atlas

Maithri.V's ...

Access Manager

Billing

All Clusters

Get Help

Maithri.V

PDT

Overview

DATABASE

Clusters

SERVICES

Atlas Search

Stream Processing

Triggers

Migration

Data Federation

SECURITY

Quickstart

Backup

Database Access

Network Access

Data Services

Charts

Find

Indexes

Aggregation

Search Indexes

Generate queries from natural language in Compass

INSERT DOCUMENT

FilterType a query: { field: 'value' }ResetApplyOptions

timestamp : 2025-09-05T12:40:05.588+00:00

\_id : ObjectId('68ba8ccdb1f625746723a97c')

bbox : Array (4)

frame\_id : 7

confidence : 0.8633314967155457

PREVIOUS

181-183 of 183 results

NEXT

System Status: All Good

@2025 MongoDB, Inc. Status Terms Privacy Atlas Blog Contact Sales

Atlas

Maithri.V's ...

Access Manager

Billing

All ClustersGet HelpMaithri.V

PDT

Data ServicesCharts

Clusters

SERVICES

Atlas Search

Stream Processing

Triggers

Migration

Data Federation

SECURITY

Quickstart

Backup

Database Access

Network Access

Advanced

New On Atlas 5

MAITHRI.V'S ORG - 2025-04-11 > PDT

Database Access

Database UsersCustom Roles

+ ADD NEW DATABASE USER

User	Description	Authentication Method	MongoDB Roles	Resources	Actions
Maithri		SCRAM	atlasAdmin@admin	All Resources	<div>EDITDELETE</div>

System Status: All Good

@2025 MongoDB, Inc. Status Terms Privacy Atlas Blog Contact Sales

File Edit Selection View Go Run ... capstone\_prjct

EXPLORER

OPEN EDITORS

- PyMongo\_conn.py
- PDT\_DB.py

CAPSTONE\_PRJCT

- .dist
- PDT\_DB.py
- PyMongo\_conn.py
- yolov8n.pt

PyMongo\_conn.py

```
1
2 import pymongo
3
4 # Replace with your Atlas connection string URI
5 uri = "mongodb+srv://Maithri:Maithri_2025@cluster0.vefa5u1.mongodb.net/"
6
7 client = pymongo.MongoClient(uri)
8
9 db = client['PDT_DB'] # Database name
10 collection = db['Collection_01'] # Collection name
11
12 # Fetch and print 5 most recent records
13 for doc in collection.find().sort("timestamp", -1).limit(5):
14     print(doc)
15
16 client.close()
17
18
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS

```
{'timestamp': datetime.datetime(2025, 9, 5, 12, 40, 5, 588000), '_id': ObjectId('68ba8ccdb1f625746723a97c'), 'bbox': [79, 1, 639, 479], 'frame_id': 7, 'confidence': 0.8633314967155457}
{'timestamp': datetime.datetime(2025, 9, 5, 12, 40, 5, 408000), '_id': ObjectId('68ba8ccdb1f625746723a97b'), 'bbox': [89, 2, 639, 479], 'frame_id': 6, 'confidence': 0.8784167170524597}
{'timestamp': datetime.datetime(2025, 9, 5, 12, 40, 5, 228000), '_id': ObjectId('68ba8ccdb1f625746723a97a'), 'bbox': [80, 1, 639, 479], 'frame_id': 5, 'confidence': 0.8478646278381348}
{'timestamp': datetime.datetime(2025, 9, 5, 12, 40, 5, 52000), '_id': ObjectId('68ba8ccdb1f625746723a979'), 'bbox': [85, 1, 639, 479], 'frame_id': 4, 'confidence': 0.8541577458381653}
{'timestamp': datetime.datetime(2025, 9, 5, 12, 40, 4, 833000), '_id': ObjectId('68ba8ccdb1f625746723a978'), 'bbox': [81, 1, 639, 479], 'frame_id': 3, 'confidence': 0.8562771081924438}
```

Ln 11, Col 1 Spaces: 4 UTF-8 CRLF Python Signed out Python 3.13 (64-bit) Go Live

File Edit Selection View Go Run ... capstone\_pjct

EXPLORER

OPEN EDITORS

- PyMongo\_conn.py
- PDT\_DB.py

CAPSTONE\_PROJECT

- .dist
- PDT\_DB.py
- PyMongo\_conn.py
- yolov8n.pt

PDT\_DB.py > ...

```
1 # ==== Import Required Libraries ====
2 import cv2
3 import numpy as np
4 from ultralytics import YOLO
5 import pymongo
6 from datetime import datetime
7
8
9 # ---- MongoDB Setup ----
10 mongo_uri = 'mongodb+srv://Maithri:Maithri_2025@cluster0.vefa5u1.mongodb.net/?retryWrites=true&w=majority&appName=Cluster0'
11 client = pymongo.MongoClient(mongo_uri)
12 db = client['PDT_DB']
13 detections_collection = db['Collection_01']
14
15 # ==== Load YOLOv8 Detector ====
16 model = YOLO("yolov8n.pt") # 'n' is fastest; use 's' or 'm' for better accuracy
17
18 # ==== Initialize Video ====
19 cap = cv2.VideoCapture(0) # Or use "yourfile.mp4"
20
21 frame_id = 0
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS

Inserted 1 detections for frame 10

0: 480x640 1 person, 81.5ms  
Speed: 1.3ms preprocess, 81.5ms inference, 0.9ms postprocess per image at shape (1, 3, 480, 640)  
Inserted 1 detections for frame 11

0: 480x640 1 person, 83.6ms  
Speed: 1.5ms preprocess, 83.6ms inference, 1.0ms postprocess per image at shape (1, 3, 480, 640)  
Inserted 1 detections for frame 12

PS C:\Users\SMITF\OneDrive\Desktop\capstone\_pjct>

powerShell  
C Compiler ...  
C Compiler ...  
C Compiler ...

File Edit Selection View Go Run ...

EXPLORER

OPEN EDITORS

CAPSTONE\_PROJECT

OUTLINE

PyMongo\_conn.py

PDT\_DB.py

new.py

PyMongo\_conn.py

yolov8n.pt

yolov8s.pt

PyMongo\_conn.py

FDT\_DB.py

```
41
42 frame_id +
43 timestamp
44
45 # Run YOLO
46 results =
47
48 det_list =
49 for box in
50     cls =
51     conf =
52     # Lowe
53     if cls
54         x1
55         de
56
57
58
59
60
61 cv
```

PROBLEMS

OUTPUT

DE

No detections in frame

0: 384x640 (no detecti

Speed: 4.1ms preprocess

No detections in frame


0: 384x640 (no detections), 247.2ms

Speed: 4.7ms preprocess, 247.2ms inference, 0.9ms postprocess per image at shape (1, 3, 384, 640)

No detections in frame 8

Pedestrian Detection & MongoDB

Pedestrians: 0



50%

100%

150%

200%

250%

300%

350%

400%

450%

500%

550%

600%

650%

700%

750%

800%

850%

900%

950%

1000%



File Edit Selection View Go Run ...

EXPLORER

OPEN EDITORS

CAPSTONE\_PRJCT

OUTLINE

TIMELINE

PyMongo\_conn.py

PDT\_DB.py

PyMongo\_conn.py

yolov8m.pt

PDT\_DB.py

PyMongo\_conn.py

yolov8m.pt

yolov8n.pt

yolov8s.pt

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

# MongoDB Setup

mongo\_uri = 'm

client = pymon

db = client['P

detections\_col

# Load YOLOv8

model = YOLO("

# Choose Input

source = input

if source == '

video\_path

cap = cv2.

elif source ==

cap = cv2.

else:

print("Inv

exit(1)

PROBLEMS

OUTPUT

DE

0: 384x640 1 person, 4

Speed: 6.4ms preprocess

Frame 2: Detected 1 to

Inserted 1 pedestrian

0: 384x640 1 person, 4

Speed: 3.8ms preprocess, 496.2ms inference, 1.1ms postprocess per image at shape (1, 3, 384, 640)

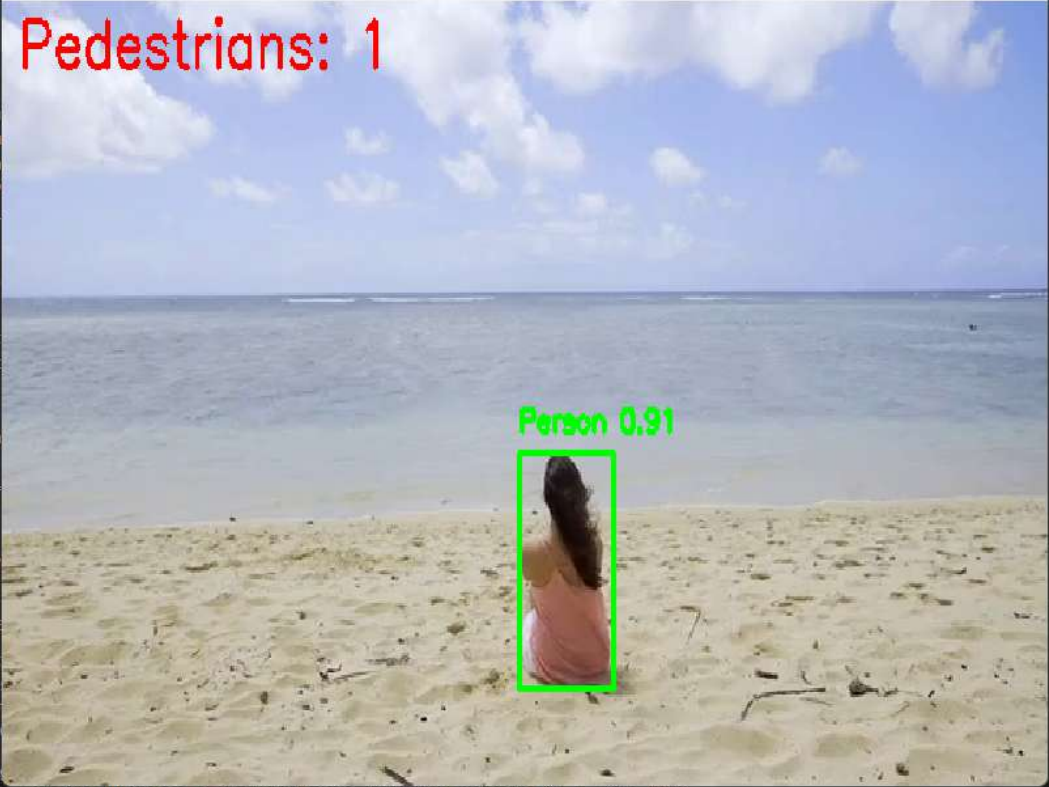
Frame 3: Detected 1 total boxes

Inserted 1 pedestrian detections for frame 3

Pedestrian Detection & MongoDB

Pedestrians: 1

Person 0.91



EXPLORE

OPEN EDITORS

PyMongo\_conn.py

yolov8m.pt

PDT\_DB.py

CAPSTONE\_PRJCT

.dist

PDT\_DB.py

PyMongo\_conn.py

yolov8m.pt

yolov8n.pt

yolov8s.pt

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

PROBLEMS

OUTPUT

DE

0: 384x640 1 person, 4

Speed: 1.8ms preprocess

Frame 6: Detected 1 to

Inserted 1 pedestrian

0: 384x640 1 person, 528.4ms

Speed: 5.3ms preprocess, 528.4ms inference, 1.7ms postprocess per image at shape (1, 3, 384, 640)

Frame 7: Detected 1 total boxes

OUTLINE

TIMELINE

Pedestrian Detection & MongoDB

Pedestrians: 1

Person 0.91

0: 384x640 1 person, 4

Speed: 1.8ms preprocess

Frame 6: Detected 1 to

Inserted 1 pedestrian

0: 384x640 1 person, 528.4ms

Speed: 5.3ms preprocess, 528.4ms inference, 1.7ms postprocess per image at shape (1, 3, 384, 640)

Frame 7: Detected 1 total boxes



File Edit Selection View Go Run ...

EXPLORED

OPEN EDITORS

PyMongo\_conn.py

yolov8m.pt

PDT\_DB.py

CAPSTONE\_PRJCT

.dist

PDT\_DB.py

PyMongo\_conn.py

yolov8m.pt

yolov8n.pt

yolov8s.pt

PyMongo\_conn.py

PDT\_DB.py > ...

```
5
6 # MongoDB Setup
7 mongo_uri = 'm
8 client = pymon
9 db = client['P
10 detections_col
11
12 # Load YOLOv8
13 model = YOLO('
14
15 # Choose Input
16 source = input
17
18 if source == '
19     video_path
20     cap = cv2.
21 elif source ==
22     cap = cv2.
23 else:
24     print("Inv
25     exit(1)
```

PROBLEMS

OUTPUT

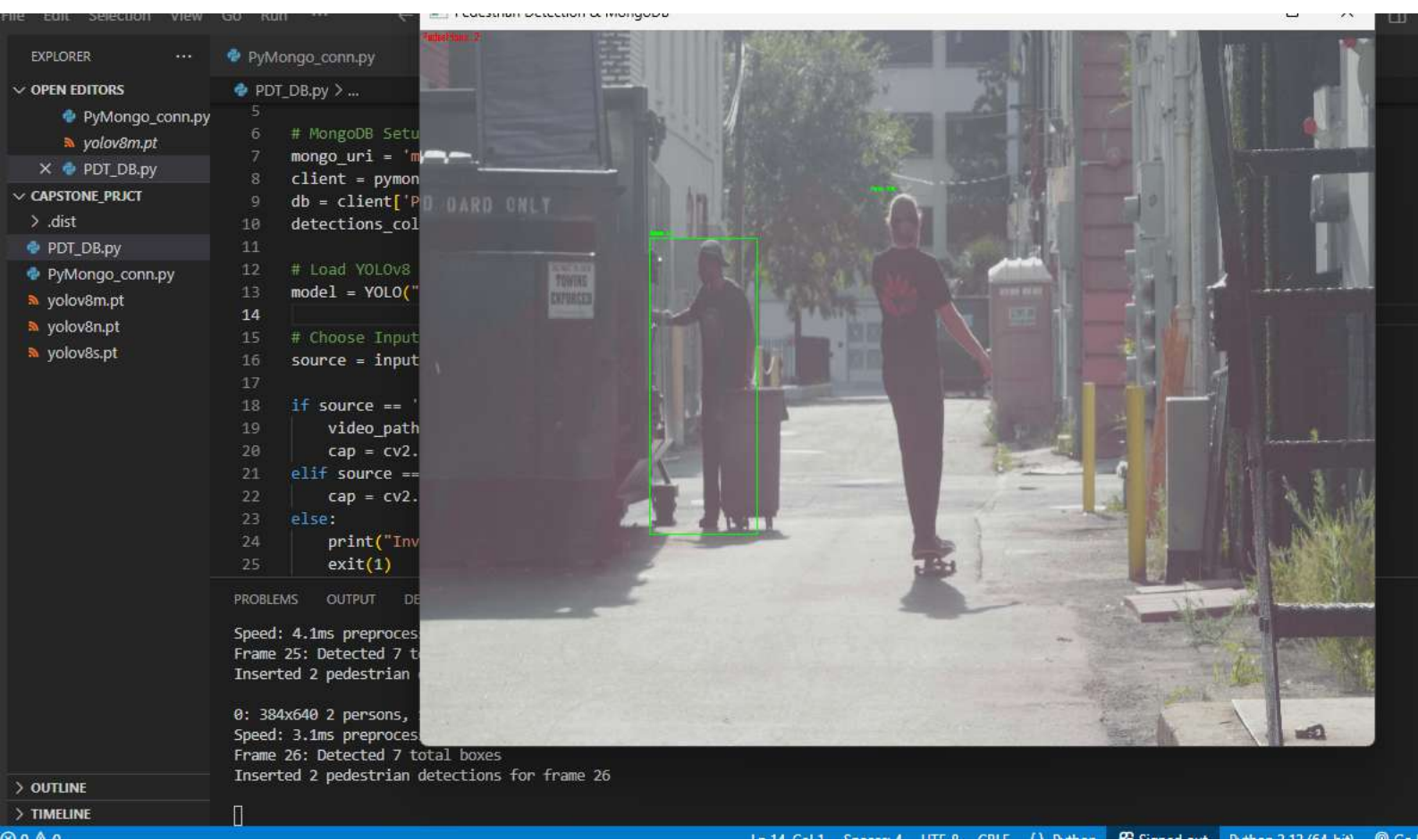
DE

0: 384x640 2 persons,
Speed: 6.5ms preprocess
Frame 4: Detected 5 to
Inserted 2 pedestrian
0: 384x640 2 persons,
Speed: 3.9ms preprocess, 519.8ms inference, 1.6ms postprocess per image at shape (1, 3, 384, 640)
Frame 5: Detected 5 total boxes
Inserted 2 pedestrian detections for frame 5

> OUTLINE

> TIMELINE

Pedestrian Detection & MongoDB



FileEditSelectionViewGoRun...capstone\_prjct

EXPLORER

OPEN EDITORS

PyMongo\_conn.py

yolov8m.pt

PDT\_DB.py

CAPSTONE\_PRJCT

.dist

PDT\_DB.py

PyMongo\_conn.py

yolov8m.pt

yolov8n.pt

yolov8s.pt

PDT\_DB.py > ...

5

6 # MongoDB Setup (hardcoded)

7 mongo\_uri = 'mongodb+srv://Maithri:Maithri\_2025@cluster0.vefa5u1.mongodb.net/?retryWrites=true&w=majority'

8 client = pymongo.MongoClient(mongo\_uri)

9 db = client['PDT\_DB'] #Database name

10 detections\_collection = db['Collection\_01'] #collection name

11

12 # Load YOLOv8 Medium Model for better accuracy

13 model = YOLO("yolov8m.pt")

14

15 # Choose Input Source

16 source = input("Enter 'camera' for webcam or 'video' for video file: ").strip().lower()

17

18 if source == 'video':

19 video\_path = input("Enter full path to video file: ").strip()

20 cap = cv2.VideoCapture(video\_path)

21 elif source == 'camera':

22 cap = cv2.VideoCapture(0)

23 else:

24 print("Invalid input. Exiting.")

25 exit(1)

PROBLEMS

OUTPUT

DEBUG CONSOLE

TERMINAL

PORTS

Speed: 4.9ms preprocess, 510.4ms inference, 1.0ms postprocess per image at shape (1, 3, 384, 640)

Frame 29: Detected 5 total boxes

Inserted 2 pedestrian detections for frame 29

0: 384x640 2 persons, 1 truck, 1 traffic light, 1 skateboard, 491.6ms

Speed: 7.0ms preprocess, 491.6ms inference, 0.9ms postprocess per image at shape (1, 3, 384, 640)

Frame 30: Detected 5 total boxes

Inserted 2 pedestrian detections for frame 30

Quitting on user request.

PS C:\Users\SMILE\OneDrive\Desktop\capstone\_prjct>

> OUTLINE

> TIMELINE

cloud.mongodb.com/v2/68ba7c7d289c995ea2f7e953#/metrics/replicaSet/68ba7d634978791c0c838fc3/explorer/PDT\_DB/Collection\_01/find

AtlasMaithri. V's ...Access ManagerBillingAll ClustersGet HelpMaithri. V

PDTData ServicesCharts

OverviewDatabaseClustersServicesAtlas SearchTeam ProcessingTriggersIntegrationData FederationSecurityBackupDatabase AccessNetwork Access

PDT\_DB

Collection\_01

sample\_analytics

sample\_mflix

FindIndexesAggregationSearch Indexes

Generate queries from natural language in Compass

INSERT DOCUMENT

FilterType a query: { field: 'value' }ResetApplyOptions

QUERY RESULTS: 161-180 OF MANY

timestamp : 2025-09-05T12:34:56.719+00:00

\_id : ObjectId('68ba8b9821cd5db75eb33ced')

bbox : Array (4)

frame\_id : 15

confidence : 0.8984318375587463

PREVIOUS161-180 of many resultsNEXT

System Status: All Good

©2025 MongoDB, Inc. StatusTermsPrivacyAtlas BlogContact Sales