

Izmir Institute of Technology

Electrical and Electronics Eng. Dep.

EE 563 Artificial Intelligence (AI) in Practice

Midterm Exam (30%)

Deadline: Tuesday 11/11/2025, until 23:59

(50 pt) Q1) Use a pose estimation library to detect body pose in a given image, and write a script to classify which arm is up.

Input: \$PATH-TO-INPUT-IMAGE, **Output:** “left”, “right”, “both” or “None”

Test your script with 3 input images provided: **pose-1.jpg, pose-2.jpg, and pose-3.jpg**.

Deliverables:

- 1) The link for your public github repository with your script, it will look like:
<https://github.com/YOUR-USERNAME/ee-563-fall-2025>
- 2) Explain your algorithm with a few sentences in a “README.md” file in your repo.

(50 pt) Q2) Use a face detection library to detect the face's looking direction in a given image, and write a script to classify if the face is looking towards left, right, or straight.

Input: \$PATH-TO-INPUT-IMAGE, **Output:** “left”, “right”, or “straight”

Test your script with 3 input images provided: **face-1.png, face-2.png, and face-3.png**.

- 1) The link for your public github repository with your script, it will look like:
<https://github.com/YOUR-USERNAME/ee-563-fall-2025>
- 2) Explain your algorithm with a few sentences in a “README.md” file in your repo.