TECHNICAL CHALLENGE

Ref. Graduate Internship: Enterprise Software Engineering

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1 Introduction

Thank you for your interest in building your experience with **eT3.**

We would like to inform you that you have been shortlisted for the **Graduate Internship Opportunity** at **eT3**. We have a technical challenge for you through which you can showcase your talent, here are the details:

The deadline to submit this task is on **Wednesday, 23rd of August 2023 at 11:59 Midnight**.

2 Use any programming language to write algorithms for the following cases:

- Given a dataset of Images splitted into folders, extract all images from folders and sub-folders and copy them to a single folder "called: images dataset for ex."

Note: There is no specific depth of sub-folders.

- For each image name in images_dataset, there is a prefix which should be discarded. (for ex: jdwjs-image1.jpg becomes image1.jpg).
- For each image in images_dataset, extract image name and size and the date of last image content modification.

Modification examples: crop images or change its orientation.

➢ Input: Dataset of Images

➢ Output:

- extracted images to one folder
- a csv file (report) that specify the following:

→ image name "with the prefix discarded."

→ image size

→ image last modification date

Image	Image Size	Image Modification data
image1.jpg	2.48 MB	Sun Aug 13 15:37:32 2023

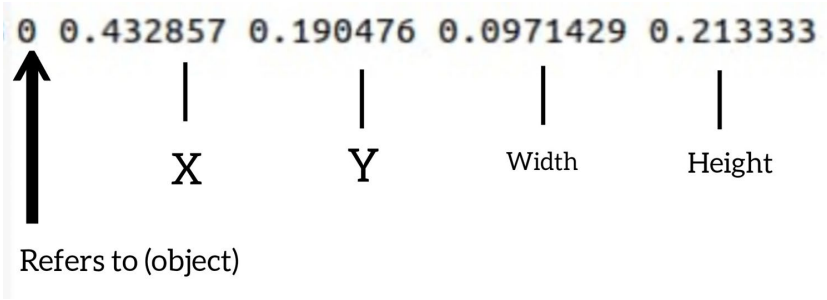
3 In a Detection system, the system takes an image, detects objects in it by drawing a box “rectangle” around the object.

For ex:
before.

after

The system output is a txt file describes the above result.

Example of a line from txt file:



For the purpose of processing the system output, this txt file converted to a json file after doing some calculations, then the json file passed to another system that used for modification and processing.

Sample from the required json file:

- Input: a txt file "first system output"
- Output: algorithm that results a json file with the given format "will be used as a second system input".

4 Deliverables

- Deliver your tasks on GitHub.
- Include brief professional documentation of the work you've done and instructions on how to run the solution.
- Deliver your work by replying to this email HR@et3.co

5 Company Information

5.1 Company Profile

Click here to check our full company profile.

If you have any questions or need anything, you can reply to this email or message/WhatsApp on +20 111 111 0550