Tech Xperience – Case competition



Hi Tech Talent!

Thank you for signing up for Philips' case! They are very curious to find out what your solution is. Please read the full description of their question and the deliverables below.

Train an object-recognition AI algorithm to help Philips detect diseases faster and more accurately.

To get to know Philips a little better, you will be provided with multiple images of Philips products (you found them in the downloaded .zipfile). We then want you to create and train an algorithm that can recognize these Philips products from just a picture.

The input of the algorithm should be the picture, and the output should be the label of the Philips product. We use this kind of technology to recognize and classify medical data, to help doctors detect diseases. So you can imagine, accuracy is extremely important.

But, there's a catch!

The dataset is very small (around 4 products with just 20 pictures per product). So, your algorithm will have to be trained from a small dataset. However, you are allowed to extend the dataset with pictures of the products from any source.

We will assess the performance of your program by running a test data set of around five new pictures per product (not part of the provided dataset). Best accuracy wins!

Deliverable

You need to write a classification program that takes an image as an input and provides one of four labels (shaver, toothbrush, wake-up-light or smart-baby-bottle) as an output. You need to deliver your solution as a link to a GitHub repository. The repository should include a docker image with the dependencies that are needed to run your solution, and an empty folder to place the validation images.

You should provide clear instructions on how to run your solution to an output that looks like this (example):

Image1 - shaver

Image2 - shaver

Image3 – toothbrush

Image4 – smart-baby-bottle

Image5 - shaver

...

The highest number of correctly labeled images wins!

Good luck! And remember, these kinds of solutions are used to improve lives!





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About Philips

https://www.careers.philips.com/professional/nl/en/softwaredevelopment?utm_source=CP&utm_medium=OT&utm_campaign=19Q4EUbrainport&utm_term=nl

Philips is a leading health technology company, focused on improving people's health and enabling better outcomes, from healthy living and prevention to diagnosis, treatment, and home care.

We're a leader in diagnostic imaging, image-guided therapy, patient monitoring, and health informatics, as well as consumer and home health.

We're a substantial employer of technical and software roles in the Eindhoven area, across projects from clinical application development to AI, and we'd love to hear from curious and talented people with an affinity for the latest technologies.



