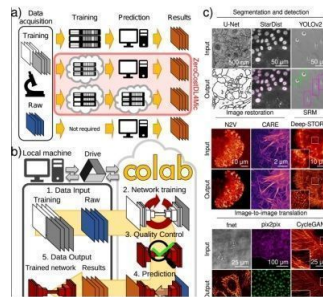


AI for Microscopy Images



Analysing microscopy images has just become easier with a new, freely available artificial intelligence platform.

You might also like: Smartphones are becoming an indelible part of everyday life and also finding their way into healthcare. A new study explores the challenges and opportunities of their applications in biomedical imaging. [Learn more](#)

Modern microscopy allows for acquisition of thousands of digital images, and AI can help process these massive samples to gain meaningful data.

A team of researchers from Finland and Portugal have leveraged the resources of Google Colab to deploy deep learning (DL) methods for microscopy images analysis. They developed an easy-to-use platform, ZeroCostDL4Mic, that allows non-expert researchers to train and apply DL networks to various tasks related to image analysis.

They tested the model's performance on [tasks](#) such as image segmentation, object detection, image denoising and restoration as well as super-resolution microscopy and image-to-image translation.

The advantages of the platform include the use of a free, cloud-based platform. In addition, its user-friendly graphical interface does not require any coding skills from the user, with all the tasks being performed in a browser.

According to the researchers, some of the potential applications for and benefits of ZeroCostDL4Mic include:

- Prototyping image-analysis workflows and pipelines without financial investment.
- Executing small-to-medium-size projects (up to 20 GB of data).
- Short-term projects not requiring a permanent investment in DL infrastructure.

The authors also highlight that thanks to its user-friendliness the model can attract non-expert researchers and students to try and learn about DL methods.

ZeroCostDL4Mic is available on [GitHub](#).

Source: [Åbo Akademi University](#)

Image credit: von Chamier et al. (2021)

Published on : Sun, 25 Apr 2021