GSOC 2024:

<https://www.gsocorganizations.dev/?search=OpenCV>

<https://summerofcode.withgoogle.com/programs/2024>

1. Ca MicroScope

Project :

## Image Classification using Foundation Models

<https://github.com/camicroscope/GSOC?tab=readme-ov-file#image-classification-using-foundation-models>

**Overview:** This project will explore the utility of pre-trained and foundation AI models to carry out patch-level classification tasks in whole slide tissue images. A pre-trained or foundation model can be used as an encoder to train a task specific model. In our project, the task specific model will classify image patches extracted from whole slide images. Using a pre-trained or foundation model can help reduce training costs, by reducing the volume of training data and/or training a simpler model. It can also result in more robust and more accurate models. This project will primarily use models available at huggingface ([https://huggingface.co](https://huggingface.co/)). It will implement software components that: (1) will allow a user to search for and download a pre-trained or foundation model from the huggingface repository, (2) select a classification network from a collection of classification network implementations, (3) train the selected classification network with the pre-trained/foundation model as the encoder, and (4) apply the trained model on patches in a whole slide image.

**Project Requirements:**

* A documented method for training a classification model using a pre-trained or foundation model
* Implementation of this method as a set of software components
* Integration of the components with caMicroscope

**Current Status:** New backend and frontend components

**Required Skills:** UX, Artificial Intelligence, Pytorch, Micro-services

**Difficulty:** High

**Project Length:** Long (~350 hours)

**Source Code:** <http://github.com/camicroscope/camicroscope>

**Primary Mentor:** Tahsin Kurc

Comment : With Citi Bank itself this is not possible. No it is . 350 hrs ~ 15days(in 12 weeks!)

Links:

<https://github.com/camicroscope/GSOC/discussions>

<https://github.com/camicroscope/GSOC/blob/master/ContributorTasks.md>

<https://camicroscope.org/roadmap.html>

<https://github.com/camicroscope/caMicroscope>

1. OpenCV

None.

1. Red Hen-Lab

(Both Medium - 175Hr project)

<https://sites.google.com/site/distributedlittleredhen/summer-of-code/red-hen-lab-gsoc-2024-ideas#h.5p8cwwfpbtid>

<https://sites.google.com/site/distributedlittleredhen/summer-of-code/red-hen-lab-gsoc-2024-ideas#h.xqpjf4x1nx4i>

1. JDE - Null
2. CVAT - very very good

(both Medium)

<https://github.com/opencv/cvat/wiki/GSoC-2024#idea-enhanced-multi-object-tracking>

<https://github.com/opencv/cvat/wiki/GSoC-2024#idea-annotate-everything-automatically>

Overall

<https://github.com/opencv/cvat/wiki/GSoC-2024#idea-annotate-everything-automatically>

Final :

1. CA Microscope
2. Annotate Everything Automatically

Next Steps : Peep through their github repos thoroughly. We want to go in Medical wala hi .

Spend time you’ll be confident!.

CVAT

15-03-24

<https://medium.com/@sumiteshn/computer-vision-models-comparison-84363ccc9a97#:~:text=Grounding%20DINO%20follows%20closely%20behind,prioritised%20over%20real%2Dtime%20constraints.>

Logs: CVAT

Changed port from 6379 to 6380 for redis\_indem in dev.compose.yml and compose.yml (the ones in the command)