



Thesis Project Form

Title (tentative): Microscopy and computer vision (external, at Arsenale BioYards, <https://arsenale.bio/>)

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Description

Motivation and application domain

At Arsenale BioYards (<https://arsenale.bio/>) we are pushing the frontiers of what is currently possible in synthetic biology, by making precision fermentation economically viable.

General objectives and main activities

We are looking for a motivated student to carry out a six month project with us, in which s/he will develop novel solutions to monitor microorganisms cultures using microscopy images and computer vision techniques, such image segmentation, detection and classification.

Training Objectives (technical/analytical tools, experimental methodologies)

The methods will be developed in Python and the student will have access to high-performance GPUs. The student will have the chance to work in a vibrant startup environment, and to develop impactful solutions to important problems.

Place(s) where the thesis work will be carried out: Mainly (or totally) at home

Additional information

Pre-requisite abilities/skills: Motivated to work in a dynamic, fast-pace environment; Strong Python skills; Knowledge of Pytorch; Has led machine learning and computer vision projects before

Maximum number of students: 1