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GENE 312

12 December 2018

Abstract

Image processing is an important tool that can be used to understand cellular processes. Using a fluorescent gene marker that indicates major cell cycle transitions, images of cells in different cell cycle points were ascertained. These cells fluoresce different colors according to the point of the cell cycle they are currently in. An R script was written to analyze and process these images. This script completes the tasks of identifying cell nuclei, masking background and assigning numbering to cells. Python can be used to complete these same tasks by taking advantage of PIL (Python Imaging Library). PIL allows for image processing within python allows for faster data processing and less compile errors than the same script written in R. This project aims at showing python’s diverse applications and its pliable nature for different data analytics projects.