



<b>TITLE</b>	POST DOC	<b>TYPE OF CONTRACT</b>	Special Designation
<b>BASIC SALARY</b>	\$62,256 per year	<b>TYPE OF WORK</b>	FULL TIME (37.5 hrs./week)
<b>DATE OF PUBLICATION:</b>	September 6, 2021		
<b>APPLICATION PERIOD:</b>	Until September 30, 2021		
<b>STARTING DATE:</b>	October 15, 2021 or as soon as available		
<b>WHO QUALIFIES TO APPLY:</b>	ALL CANDIDATES THAT MEET THE REQUISITES FOR THE POSITION		

## JOB DESCRIPTION

### Postdoc in Computer Vision: automated video monitoring of insect pollinators

An USDA/NIFA-funded postdoctoral position is available in the laboratory of Dr. Rémi Mégret in the Department of Computer Science of the University of Puerto Rico, Río Piedras Campus.

As a team member of Dr. Mégret's laboratory, the Post-doctoral fellow will contribute with quality research outputs and conceptual support to develop new Computer Vision methods for the automated video monitoring of insect pollinators and their interactions with flowers. This work will build upon the existing models and system developed by the team as part of NSF project "Large-Scale Multi-Parameter Analysis of Honeybee Behavior in their Natural Habitat" that enabled automatic foraging and pollen intake monitoring at the entrance of a honeybee colony. We expect to expand significantly the scale at which we can analyze the population and foraging behavior of both honeybees and wild pollinator in the field. It will involve new machine learning models (including Deep Neural Network architectures) that will push the state-of-the art for videos collected in an open environment. More specifically, the Post-doctoral fellow will:

- Develop and validate new models for detection, identification and behavior analysis from video
- Integrate them into a system for automatic analysis of insect-flower interaction
- Take an active role in the DeepPollinator project, working with Biology and Ecology collaborators to apply the developed technology to research in population dynamics and foraging behavior of honeybees and wild pollinators
- Publish the results in appropriate conferences and journals
- Mentor graduate and undergraduate students involved in the research
- Participate in the writing of proposals to seek external funds to sustain and extend the research

## SPECIAL REQUISITES

The candidate must have completed a Ph.D. degree within the last 5 years, preferably in computer science, machine learning, robotics or a related field. The position requires skills in Computer Vision and Deep Learning evidenced by a strong record of research in these areas. Experience with cloud computing, embedded vision systems and/or biology applications is preferred but not required. The successful applicant should have a genuine interest in multi-disciplinary research, strong work ethics,

communication & organization skills, and a willingness to learn new methodologies as the project evolves.

### IMPORTANT INFORMATION

To apply, please submit (i) a cover letter including motivation and research interests, (ii) a full CV that includes all requisites for the position, (iii) contact information for three references electronically, and (iv) copies of all academic degrees \*(diplomas and certifications). Inquiries about the position can be directed to remi.megret@upr.edu.

We are seeking candidates for a one-year appointment (renewable). Funding is already available. \*The selected candidate must present official credentials from all his/her academic degrees.

This job opportunity is financed with external funding and does not consider the expectation of a probation position.


APPLICATIONS SUBMITTED WITH INCOMPLETE INFORMATION WILL NOT BE CONSIDERED.  
CANDIDATES WITH A PH.D. DEGREE OF 5 YEARS OR MORE ARE NOT ELEGIBLE FOR THIS POSITION.

All documents must be submitted to the following electronic address before or by September 30, 2021:


Attention to: Dr. Rémi Mégret  
Subject: Postdoc DeepPollinator  
e-mail: remi.megret@upr.edu



Dr. Rémi Mégret  
PI, DeepPollinator Project



Dr. Néstor Carballeira, Dean  
Faculty of Natural Sciences



Prof. Leticia Fernández Morales, Dean  
Deanship for Academic Affairs