The Levy’s lab for biophysical ecology is seeking a highly motivated postdoctoral research fellow to join our Artificial Intelligence projects. Our research laboratory is located at the School of Zoology, Tel Aviv University. The project’s goal is to create an artificial intelligence models to predict microclimates using remote-sensing tools, and detect animals in challenging camera-trap scenarios. Using such technological tools, we aim to better predict the diversity of microclimates at various habitats and topographic scenarios and predict how biodiversity may be affected by habitat modifications, such as reforestation and desertification. Our AI research also aims to develop early-detection system for pests and disease vector insects.

The postdoctoral fellow will develop artificial intelligence models using the deep learning framework that 1) predicts ground surface maps at a resolution of centimeters using drone data, and 2) detect insects in images that were collected using time-lapse cameras facing the ground. This position is funded by a National Geographic's "AI for Earth" grant and by a TAU-Google's "AI for Social Good" grant. Our drone and timelapse datasets include novel characteristics that can be further investigated, and curiosity and enthusiasm to explore new directions in ecology and computer-vision are welcome. The postdoctoral researcher will work collaboratively with the PI (Ofir Levy), other graduate students in the lab, and computer scientists (students and PIs) in Tel Aviv's Center of Artificial Intelligence and Data Science to develop the AI models, write manuscripts, design online tutorials for using the models and in-person workshops for scientific meetings.

**Qualifications:** Applicants of all nationalities are eligible to apply. Applicants must hold a PhD in exact sciences, life sciences, or a related field by the start of the position. Applicants are required to have a strong experience with Python, and should have a background in deep-learning model development, and experience publishing scientific research. Candidates with experience in computer-vision analysis, PyTorch models development, or Microsoft Azure AI platform are especially encouraged to apply.

**How to apply:** This is a full-time position for one year, with the possibility of extension for one more year conditional on satisfactory performance. The start date is flexible, but no later than October 2021. To apply, submit a single PDF with the following documents: 1) a cover letter (2-pg max) with the qualifications for this position and research interests, 2) CV, and 3) contact information for 2-3 references. Applications will be reviewed starting May 15, 2021 but the position will remain open until filled.

Please direct questions to levyofi@gmail.com. For more information on the lab, please visit: https://www.biophysical-ecology.com