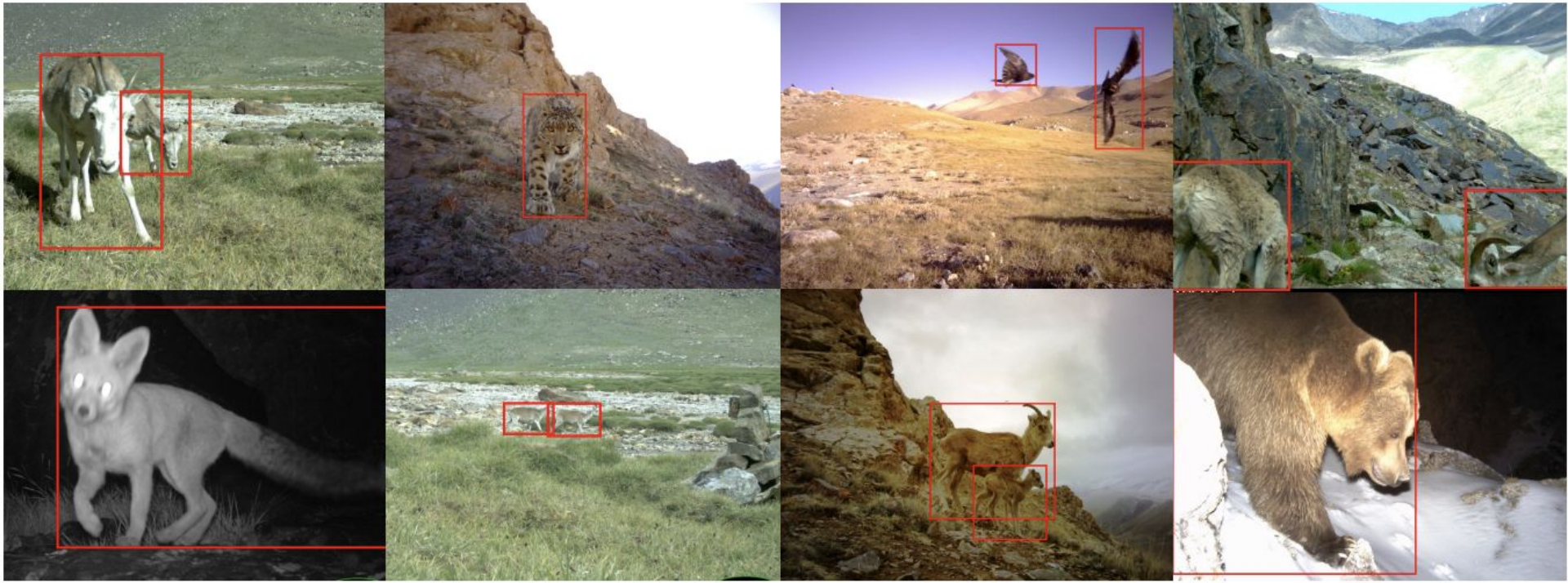


CameraTrapAI @ CV4Ecology

Sara Beery | September 28, 2022

CALIFORNIA INSTITUTE OF TECHNOLOGY 1891

RESNICK INSTITUTE
science + energy + sustainability

Summer Workshop on Computer Vision Methods for Ecology

CALTECH RESNICK SUSTAINABILITY INSTITUTE

http://cv4ecology.caltech.edu/

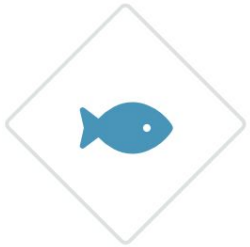
Our Mission

Teach Applied CV as a tool for Ecological Research

Provide instruction and tools for an accessible introduction to applied Computer Vision, with the contextual framing of ecological research needs.

Empower ecologists to build their own CV-based systems

Democratize Computer Vision and increase the accessibility and scalability of computer-vision-based solutions to natural world questions



Grow the interdisciplinary CV for Ecology community

Provide a central hub for the exchange of ideas and best practices, where expert ecologists and expert computer vision scientists can work together to face real-world challenges in conservation and sustainability

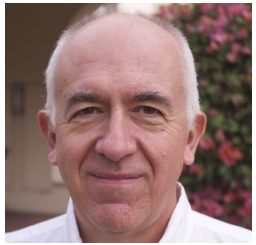
Provide access to computational resources

Cloud credits to store data, collect annotations, train models, and host solutions are provided by Microsoft AI for Earth and Amazon AWS. Each student will be awarded $2.5K in credits to help take their project from research idea to reality.

Leadership Team

Leadership Team

Sara Beery



Pietro Perona

Instructors

Eli Cole

Jason Parham

Benjamin Kellenberger

Bjorn Lutjens

Administration & Logistics

Caroline Murphy

Xenia Amashukeli

Teaching Assistants

Suzanne Stathatos

Tarun Sharma

Justin Kay













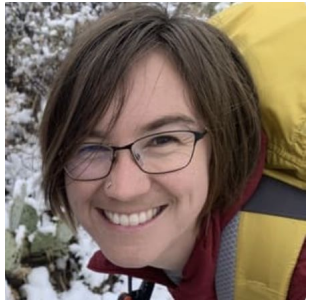
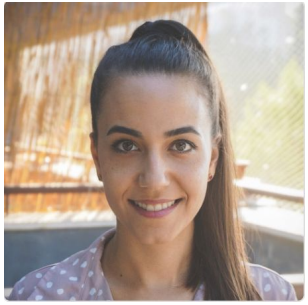
Invited Speakers

The Students





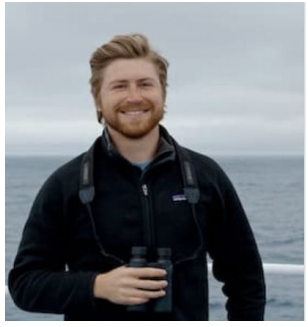








Projects

ReID
- Bears
- Iberian Lynx

Classification
- Lemurs
- Bumblebees
- Urban Wildlife
- Weather
- Ant sizing
- Beaked Whales

Regression
- Wind Speed

Detection
- Woodland Draws
- Flies
- Ducks/Geese
- Piospheres/Water Tanks

Segmentation
- Permafrost
- AGB
- Walrus

Clustering
- Species Richness
- Iberian Lynx

Projects

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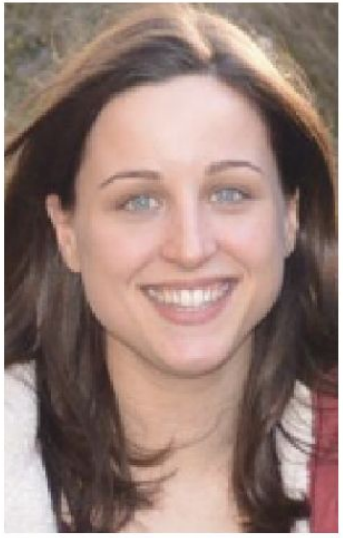

Clustering
- **Species Richness**
- Iberian Lynx