

Call for Papers:

CVPR 2018 Workshop on Vision with Biased or Scarce Data

The performance of vision algorithms on many key problems that were once considered hard is now astounding. In many cases however, significant amounts of data are necessary to achieve high performance. The objective of this workshop is to provide researchers a forum to present work in problem domains where insufficient raw data is available for current learning systems.

The topic of scarce or biased data has been and is continuously being covered in the Machine Learning and adjoining communities, e.g. in transfer learning. However, computer vision has a special place when it comes to explaining observed data due to the vast amount of potential prior knowledge (e.g. separation of appearance and geometry) and data generation models (e.g. computer graphics).

To this end, we pose the following questions:

- When is data biased or scarce?
- How can we detect bias or scarcity in data?
- How can we improve and evaluate performance under bias or scarcity?

We solicit submissions that address any of the above questions as well as the following topics:

- Modeling data and learning from inhomogeneous input
- Structured and unstructured prior knowledge (e.g. language, multi-modality)
- Combining domain-related and unrelated data and priors
- Generative modeling for augmenting synthetic and real data
- Converging rendering and inference (e.g. combine partial inference with partial synthesis)
- Prior models for latent distributions that explain and generate images and videos
- Automation of data and prior exploration with minimal human-in-the-loop
- Design and evaluation of vision algorithms and systems under data scarcity
- Detecting and quantifying bias and scarcity in data
- Principled combinations of prior knowledge and learnt representations
- Detecting and avoiding overfitting
- Modeling and understanding generalization behavior with scarce data

Submission instructions: Each submitted paper must be no longer than 8 pages excluding references. Please refer to http://cvpr2018.thecvf.com/submission/main_conference/author_guidelines#call_for_papers for detailed instructions.

Please submit papers at <https://cmt3.research.microsoft.com/VBSD2018>

Important dates (all deadlines 11:59 PM PST):

- Submission deadline: March 16, 2018
- Decision notification: April 2, 2018
- Final version submission: April 9, 2018
- Workshop day: June 22, 2018

Organizers:

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Workshop website: <https://vbsd2018.github.io/>

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