

Learning from Imperfect Supervision

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Abstract

In many machine learning applications, collecting a large amount of high-quality labeled data is often challenging. However, relying solely on unlabeled data may not always be reliable. To address this issue, leveraging imperfect data presents a promising approach. In this talk, I will provide an overview of our recent research on developing reliable machine learning methods under imperfect supervision. This includes weakly supervised learning, learning with noisy labels, and transfer learning. Finally, I will discuss how machine learning research should evolve in the era of large foundation models.

Bio

Masashi Sugiyama received his Ph.D. in Computer Science from Tokyo Institute of Technology, Japan, in 2001. After serving as an assistant and associate professor at the same institute, he became a professor at the University of Tokyo in 2014. Since 2016, he has also served as the director of the RIKEN Center for Advanced Intelligence Project. His research interests include theories and algorithms of machine learning. He was awarded the Japan Academy Medal in 2017 and the Commendation for Science and Technology by the Minister of Education, Culture, Sports, Science and Technology of Japan in 2022.

Host

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