Knowledge Distillation and Student-Teacher Learning for Visual Intelligence: A Review and New Outlooks

Cited by 98, IEEE 2020;

Abstract

‘Student-Teacher’ (S-T) learning framework; (1) explanation of KD; (2) a comprehensive survey on the recent progress of KD methods; (2022-2-22)

1. Introduction
2. over-parameterized; (2022-2-22)
3. Transfer knowledge; semi-supervised learning; self-supervised learning; (2022-2-22)
4. knowledge distillation (KD) and student teacher (S-T) learning; (2022-2-23)
5. analyzing and categorizing existing KD methods; KD methods in the vision field; (2022-2-23)
6. some fundamental questions; (2022-2-23)
7. stress the importance of recently developed technologies; (2022-2-23)
8. main contributions: a comprehensive overview; The organization of this paper is as follows; (2022-2-23)
9. WHAT IS KD AND WHY CONCERN IT?
10. Hinton’s work; (2022-2-23)
11. Why concern KD?
12. A THEORETICAL ANALYSIS OF KD
13. KD BASED ON THE NUMBER OF TEACHERS

IV.1 Distillation from one teacher

IV.1.1 Knowledge from logits

1. Softened labels and regularization;
2. -