Table 4: Comparisons of existing works on DNN partition approaches.

Reference	Number of timization formances 1 1 1 1 1 1 2 2 2 2 2 2 2 2 2 2 2 2	Whether Space Complexity is considered N N N N N N N N N N N N N N N N N N	Whether Time Complexity is considered N N N N N N N N N N N N N N N N N N N	trics Whether Generalizability is considered N N Y Y Y Y Y Y Y N N N N N N N N N N	Whether Scalability is considered N Y N N N Y Y Y N N N N Y Y Y Y N	Whether Self-adaptability is considered N Y Y Y Y Y Y Y Y N N Y Y Y Y Y Y Y Y
DDNNC [16] EdgeLD [25] MDPO [32] DINA [34] EPDNN [37] DeepQuery [49] CoopAI [39] JODS [46] CoEdge [10] DNNTune [47] ROI [53] ADDA [41] Edgent [28] AppealNet [52] CECF [9] FSEP [48] EdgeCNN [54] ADPEC [23] Pripro [51] JointDNN [44] MeDNN [21] DPSO-GO [61] GACO [35] DADS [50] PANDA [36] FEPD [38] PerDNN [40] SPSO-GA [59] QDMP [62] TREND-WANT [64]	1 1 1 1 1 1 1 1 2 2 2 2 2 2 2 2 2 2 2	N N N N N N N N N N N N N N N N N N N	N N N N N N N N N N N N N N N N	N N N Y Y Y Y Y Y Y N N N N N	Y N N N N Y Y Y Y N N N N N N N	N Y Y Y Y Y Y Y N N N N Y Y Y Y N N N Y Y Y Y Y N N N N Y Y Y Y
EdgeLD [25] MDPO [32] DINA [34] EPDNN [37] DeepQuery [49] CoopAI [39] JODS [46] CoEdge [10] DNNTune [47] ROI [53] ADDA [41] Edgent [28] AppealNet [52] CECF [9] FSEP [48] EdgeCNN [54] ADPEC [23] Pripro [51] JointDNN [44] MeDNN [21] DPSO-GO [61] GACO [35] DADS [50] PANDA [36] FEPD [38] PerDNN [40] SPSO-GA [59] QDMP [62] TREND-WANT [64]	1 1 1 1 1 1 2 2 2 2 2 2 2 2 2 2 2 2 2	N N N N N N N N N N N N N N N N N N N	N N N N Y Y Y N N N N N N N N N N N N N	Y Y Y Y Y Y Y Y N N N N N	N N N Y Y Y Y Y N N N N N	Y Y Y Y N Y Y N N N Y
MDPO [32] DINA [34] EPDNN [37] DeepQuery [49] CoopAI [39] JODS [46] CoEdge [10] DNNTune [47] ROI [53] ADDA [41] Edgent [28] AppealNet [52] CECF [9] FSEP [48] EdgeCNN [54] ADPEC [23] Pripro [51] JointDNN [44] MeDNN [21] DPSO-GO [61] GACO [35] DADS [50] PANDA [36] FEPD [38] PerDNN [40] SPSO-GA [59] QDMP [62] TREND-WANT [64]	1 1 1 1 1 1 2 2 2 2 2 2 2 2 2 2 2 2 2	N N N N N N N N N N N N N N N N N N N	N N N N Y Y Y N N N N N N N N N N N N N	Y Y Y Y Y Y Y Y N N N N N	N N N Y Y Y Y Y N N N N N	Y Y Y Y N Y Y N N N Y
DINA [34] EPDNN [37] DeepQuery [49] CoopAI [39] JODS [46] CoEdge [10] DNNTune [47] ROI [53] ADDA [41] Edgent [28] AppealNet [52] CECF [9] FSEP [48] EdgeCNN [54] ADPEC [23] Pripro [51] JointDNN [44] MeDNN [21] DPSO-GO [61] GACO [35] DADS [50] PANDA [36] FEPD [38] PerDNN [40] SPSO-GA [59] QDMP [62] TREND-WANT [64]	1 1 1 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	N N N N N Y N N N N N N N N N N N N N	N N N Y Y Y N N N N N N N N N N N N N N	Y Y Y Y Y Y Y N N N N N	N N Y Y Y Y N N N N	Y Y Y Y N Y Y N N N Y
EPDNN [37] DeepQuery [49] CoopAI [39] JODS [46] CoEdge [10] DNNTune [47] ROI [53] ADDA [41] Edgent [28] AppealNet [52] CECF [9] FSEP [48] EdgeCNN [54] ADPEC [23] Pripro [51] JointDNN [44] MeDNN [21] DPSO-GO [61] GACO [35] DADS [50] PANDA [36] FEPD [38] PerDNN [40] SPSO-GA [59] QDMP [62] TREND-WANT [64]	1 1 1 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	N N N N Y N N N N N N N N N N N	N N Y Y Y N N N N N N N N N N	Y Y Y Y Y Y N N N N N	N Y Y Y Y N N N N	Y Y Y N N Y Y Y Y Y N N N Y Y Y
DeepQuery [49] CoopAI [39] JODS [46] CoEdge [10] DNNTune [47] ROI [53] ADDA [41] Edgent [28] AppealNet [52] CECF [9] FSEP [48] EdgeCNN [54] ADPEC [23] Pripro [51] JointDNN [44] MeDNN [21] DPSO-GO [61] GACO [35] DADS [50] PANDA [36] FEPD [38] PerDNN [40] SPSO-GA [59] QDMP [62] TREND-WANT [64]	1 1 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	N N N Y N N N N N N N N N N	N Y Y N N N N N N N	Y Y Y Y N N N N N	Y Y Y Y N N N	Y N Y Y Y N N N Y Y Y
CoopAI [39] JODS [46] CoEdge [10] DNNTune [47] ROI [53] ADDA [41] Edgent [28] AppealNet [52] CECF [9] FSEP [48] EdgeCNN [54] ADPEC [23] Pripro [51] JointDNN [44] MeDNN [21] DPSO-GO [61] GACO [35] DADS [50] PANDA [36] FEPD [38] PerDNN [40] SPSO-GA [59] QDMP [62] TREND-WANT [64]	1 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	N N N Y N N N N N N N N N	Y Y N N N N N N N N	Y Y Y N N N N N	Y Y Y N N N	N Y Y N N N Y
JODS [46] CoEdge [10] DNNTune [47] ROI [53] ADDA [41] Edgent [28] AppealNet [52] CECF [9] FSEP [48] EdgeCNN [54] ADPEC [23] Pripro [51] JointDNN [44] MeDNN [21] DPSO-GO [61] GACO [35] DADS [50] PANDA [36] FEPD [38] PerDNN [40] SPSO-GA [59] QDMP [62] TREND-WANT [64]	1 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	N Y N N N N N N N N N N N	Y N N N N N N N N N N	Y Y N N N N N N	Y Y N N N	Y Y N N Y
CoEdge [10] DNNTune [47] ROI [53] ADDA [41] Edgent [28] AppealNet [52] CECF [9] FSEP [48] EdgeCNN [54] ADPEC [23] Pripro [51] JointDNN [44] MeDNN [21] DPSO-GO [61] GACO [35] DADS [50] PANDA [36] FEPD [38] PerDNN [40] SPSO-GA [59] QDMP [62] TREND-WANT [64]	1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	Y N N N N N N N N N N	N N N N N	Y N N N N	Y N N N N	Y N N Y Y
DNNTune [47] ROI [53] ADDA [41] Edgent [28] AppealNet [52] CECF [9] FSEP [48] EdgeCNN [54] ADPEC [23] Pripro [51] JointDNN [44] MeDNN [21] DPSO-GO [61] GACO [35] DADS [50] PANDA [36] FEPD [38] PerDNN [40] SPSO-GA [59] QDMP [62] TREND-WANT [64]	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	N N N N N N	N N N N N	N N N N	N N N N	N N Y Y
ROI [53] ADDA [41] Edgent [28] AppealNet [52] CECF [9] FSEP [48] EdgeCNN [54] ADPEC [23] Pripro [51] JointDNN [44] MeDNN [21] DPSO-GO [61] GACO [35] DADS [50] PANDA [36] FEPD [38] PerDNN [40] SPSO-GA [59] QDMP [62] TREND-WANT [64]	2 2 2 2 2 2 2 2 2 2 2	N N N N N	N N N N	N N N N	N N N	N Y Y
ADDA [41] Edgent [28] AppealNet [52] CECF [9] FSEP [48] EdgeCNN [54] ADPEC [23] Pripro [51] JointDNN [44] MeDNN [21] DPSO-GO [61] GACO [35] DADS [50] PANDA [36] FEPD [38] PerDNN [40] SPSO-GA [59] QDMP [62] TREND-WANT [64]	2 2 2 2 2 2 2 2	N N N N	N N N	N N N	N N	Y Y
Edgent [28] AppealNet [52] CECF [9] FSEP [48] EdgeCNN [54] ADPEC [23] Pripro [51] JointDNN [44] MeDNN [21] DPSO-GO [61] GACO [35] DADS [50] PANDA [36] FEPD [38] PerDNN [40] SPSO-GA [59] QDMP [62] TREND-WANT [64]	2 2 2 2 2 2 2	N N N N	N N N	N N	N	Y
AppealNet [52] CECF [9] FSEP [48] EdgeCNN [54] ADPEC [23] Pripro [51] JointDNN [44] MeDNN [21] DPSO-GO [61] GACO [35] DADS [50] PANDA [36] FEPD [38] PerDNN [40] SPSO-GA [59] QDMP [62] TREND-WANT [64]	2 2 2 2 2	N N N	N N	N		
CECF [9] FSEP [48] EdgeCNN [54] ADPEC [23] Pripro [51] JointDNN [44] MeDNN [21] DPSO-GO [61] GACO [35] DADS [50] PANDA [36] FEPD [38] PerDNN [40] SPSO-GA [59] QDMP [62] TREND-WANT [64]	2 2 2 2	N N	N		1.04	Y
FSEP [48] EdgeCNN [54] ADPEC [23] Pripro [51] JointDNN [44] MeDNN [21] DPSO-GO [61] GACO [35] DADS [50] PANDA [36] FEPD [38] PerDNN [40] SPSO-GA [59] QDMP [62] TREND-WANT [64]	2 2 2	N			Y	
EdgeCNN [54] ADPEC [23] Pripro [51] JointDNN [44] MeDNN [21] DPSO-GO [61] GACO [35] DADS [50] PANDA [36] FEPD [38] PerDNN [40] SPSO-GA [59] QDMP [62] TREND-WANT [64]	2 2		N.T	N		N
ADPEC [23] Pripro [51] JointDNN [44] MeDNN [21] DPSO-GO [61] GACO [35] DADS [50] PANDA [36] FEPD [38] PerDNN [40] SPSO-GA [59] QDMP [62] TREND-WANT [64]	2	IN	N	N	Y	N
Pripro [51] JointDNN [44] MeDNN [21] DPSO-GO [61] GACO [35] DADS [50] PANDA [36] FEPD [38] PerDNN [40] SPSO-GA [59] QDMP [62] TREND-WANT [64]			N	N	Y	N
JointDNN [44] MeDNN [21] DPSO-GO [61] GACO [35] DADS [50] PANDA [36] FEPD [38] PerDNN [40] SPSO-GA [59] QDMP [62] TREND-WANT [64]		N	N	N	Y	Y
MeDNN [21] DPSO-GO [61] GACO [35] DADS [50] PANDA [36] FEPD [38] PerDNN [40] SPSO-GA [59] QDMP [62] TREND-WANT [64]	2	N	N	N	Y	N
DPSO-GO [61] GACO [35] DADS [50] PANDA [36] FEPD [38] PerDNN [40] SPSO-GA [59] QDMP [62] TREND-WANT [64]	2	N	N	Y	N	N
GACO [35] DADS [50] PANDA [36] FEPD [38] PerDNN [40] SPSO-GA [59] QDMP [62] TREND-WANT [64]	2	N	N	Y	N	Y
DADS [50] PANDA [36] FEPD [38] PerDNN [40] SPSO-GA [59] QDMP [62] TREND-WANT [64]	2	N	N	Y	Y	N
PANDA [36] FEPD [38] PerDNN [40] SPSO-GA [59] QDMP [62] TREND-WANT [64]	2	N	N	Y	Y	N
FEPD [38] PerDNN [40] SPSO-GA [59] QDMP [62] TREND-WANT [64]	2	N	N	Y	Y	Y
PerDNN [40] SPSO-GA [59] QDMP [62] TREND-WANT [64]	2	N	N	Y	Y	Y
SPSO-GA [59] QDMP [62] TREND-WANT [64]	2	N	N	Y	Y	Y
QDMP [62] TREND-WANT [64]	2	N	N	Y	Y	Y
TREND-WANT [64]	2	N	Y	Y	N	Y
	2	N	Y	Y	N	Y
IMDD [20]	2	N	Y	Y	Y	N
JMDF [30]	2	N	Y	Y	Y	Y
EACA [33]	2	Y	N	N	Y	N
JALAD [45]	2	Y	Y	Y	N	Y
PADCS [60]	2	Y	Y	Y	Y	Y
CEVAS [63]	3	N	N	N	Y	N
EEDOS [29]	3	N	N	Y	N	N
Neurosurgeon [42]	3	N	N	Y	N	Y
DDNNs [57]	3	N	N	Y	N	Y
IONN [27]	3	N	N	Y	N	Y
DeepAdapter [58]	3	N	N	Y	Y	Y
EAIOD [31]	3	N	N	Y	Y	<u> </u>
JPDRA [24]	3	N	Y	Y	Y	<u> </u>
DeepThings [26]	4	N	N	N	N	<u> </u>
TMOA-ATSA [56]	4	N	N	Y	Y	N
MCDNN [43]	_	N	N	Y	Y	<u>Y</u>
Scission [55]		N N	N N	N N	N N	N
MAHP [1]	4 5	N	N N	Y	N N	N N