SONUÇLAR

	Adam, B.S.=128, lr=0.001	SGD, B.S.=128, lr=0.001	Adam, B.S.=64, lr=0.001
ResNet 18	89.01	88.46	90.43
Light ResNet 18	77.53	73.27	78.10
Knowledge Distillation (T=2, α=0.5, λ=0.5) Teacher: ResNet18, Student: ResNet18	90.24	89.51	91.29
Knowledge Distillation (T=2, α=0.5, λ=0.5) Teacher: ResNet18, Student: Light ResNet 18	88.95	88.13	89.03
Transfer L. (2,3,4. katmanlar açık)	86.36	84.38	86.30

Tablo 1: Knowledge Distillation ve Transfer Learning Accuarcy Karşılaştırması

Ölçüm	Transfer Learning	Knowledge Distillation	
	ResNet18	ResNet18	Light ResNet18
Toplam Parametre Sayısı	11,342,794	11,335,114	2,837,226
Eğitilebilir Parametreler	11,185,290	11,335,114	2,837,226
Eğitilemeyen Parametreler	157,504	0	0
Total mult-adds (M)	37.19	140.36	35.53
Input size (MB)	0.01	0.01	0.01
Forward/backward pass size (MB)	0.82	3.25	1.63
Parametre Boyutu (MB)	45.37	45.34	11.35
Tahmini Toplam Boyut (MB)	46.20	48.60	12.99
Toplam FLOPs (GFLOPs)	0.0373	6.8890	1.7489

Tablo 2: Knowledge Distillation ve Transfer Learning Model Parametre Karşılaştırması

Knowledge Distillation için yapılmış farklı testler:

	T	Adam, B.S.=128, lr=0.001	SGD, B.S.=128, lr=0.001	Adam, B.S.=64, lr=0.001
Teacher: ResNet18, Student: ResNet18	**1.5**	89.67	89.18	90.98
Teacher: ResNet18, Student: ResNet18	**2**	90.24	89.51	**91.29**
Teacher: ResNet18, Student: ResNet18	**2.5**	**90.27**	**89.81**	91.20
Teacher: ResNet18, Student: ResNet18	**3**	89.65	88.85	91.07
Teacher: ResNet18, Student: Light ResNet 18	**1.5**	88.85	87.60	89.06
Teacher: ResNet18, Student: Light ResNet 18	**2**	88.95	88.13	89.03
Teacher: ResNet18, Student: Light ResNet 18	**2.5**	**89.25**	87.99	**89.56**
Teacher: ResNet18, Student: Light ResNet 18	**3**	89.02	**88.21**	89.51

Tablo 3: Knowledge Distillation'da farklı T değerleri için accuracy karşılaştırması (α=0.5, λ=0.5)

	α(Soft target loss), λ(Cross Entropy loss)	Adam, B.S.=128, lr=0.001	SGD, B.S.=128, lr=0.001	Adam, B.S.=64, lr=0.001
Teacher: ResNet18, Student: ResNet18	**α=0.5, λ=0.5**	**90.24**	89.51	**91.29**
Teacher: ResNet18, Student: ResNet18	**α=0.7, λ=0.3**	89.65	89.39	91.15
Teacher: ResNet18, Student: ResNet18	**α=0.3, λ=0.7**	52.47	**89.85**	90.99
Teacher: ResNet18, Student: Light ResNet 18	**α=0.5, λ=0.5**	88.95	**88.13**	89.03
Teacher: ResNet18, Student: Light ResNet 18	**α=0.7, λ=0.3**	88.72	87.91	**89.61**
Teacher: ResNet18, Student: Light ResNet 18	**α=0.3, λ=0.7**	**89.10**	87.78	89.12

Tablo 4: Knowledge Distillation'da farklı loss dağılımları için accuracy karşılaştırması (T=2)