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Contextual Classification Using Self-Supervised Auxiliary Models for Deep Neural Networks

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Motivation

Contextual Classification



Solve an Additional Task



Solve an Additional Task



Multi-Task Learning Problem with an <u>auxiliary</u> task that is more directly related to the main task



How to Group



Training



Inference





ACCURACY ON ResNet-50









8



Advantage: More Structured Predictions



More Structured Predictions: False Positives



Class-Activation-Maps (CAM)









SSAL models are more explainable thanks to the grouping criterion



* THEY ALSO CONVERGE FASTER AND WITH HIGHER ACCURACY!



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Paper's website: https://spalaciob.github.io/ssal.html

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Some images have been taken from www.pexels.com and www.openclipart.org



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