On the Effects of Artificial Data Modification

Antonia Marcu

Adam Prügel-Bennett

Why Data Modification?

Why Data Modification?

- Enhancing data sets

Why Data Modification?

- Enhancing data sets
- Evaluating models

Why Data Modification?

- Enhancing data sets
- Evaluating models
- Understanding learnt representations

What are the Implicit Assumptions?

What are the Implicit Assumptions?

Side-effects

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Evaluation

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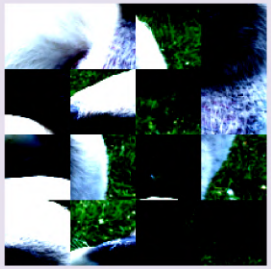

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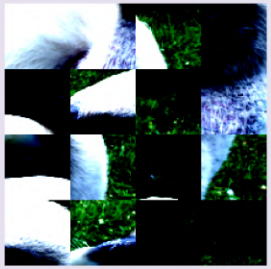

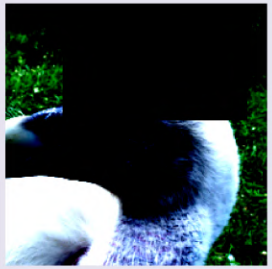

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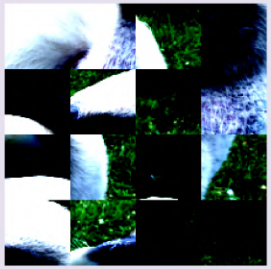

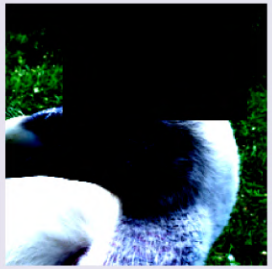

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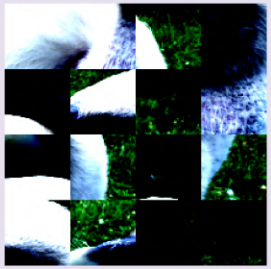

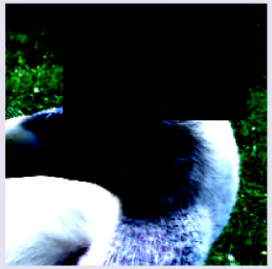

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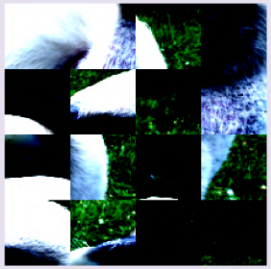

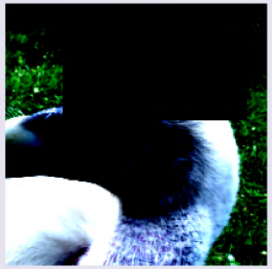

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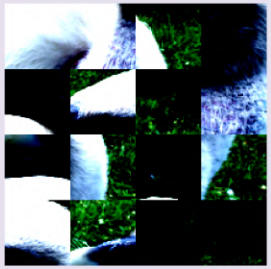

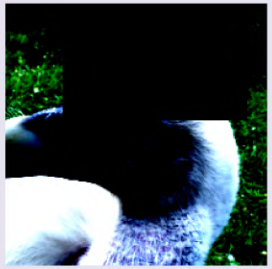

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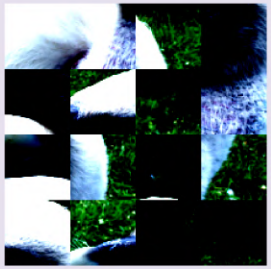

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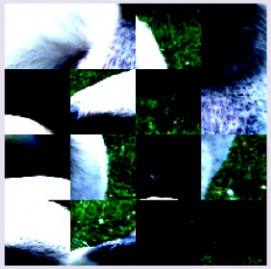

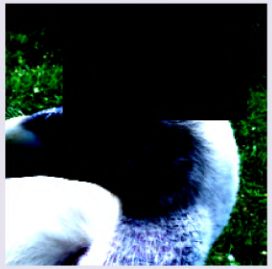

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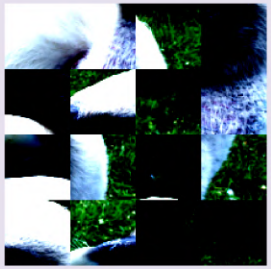

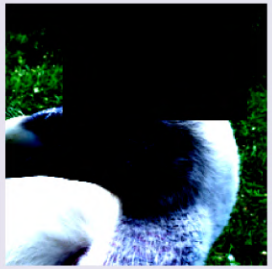

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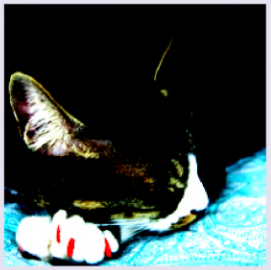

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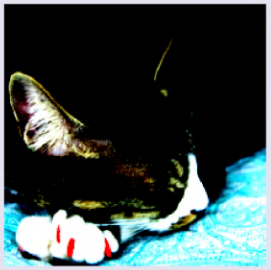

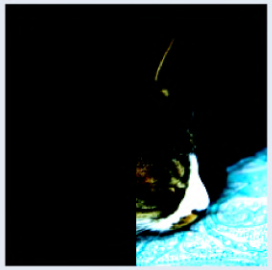

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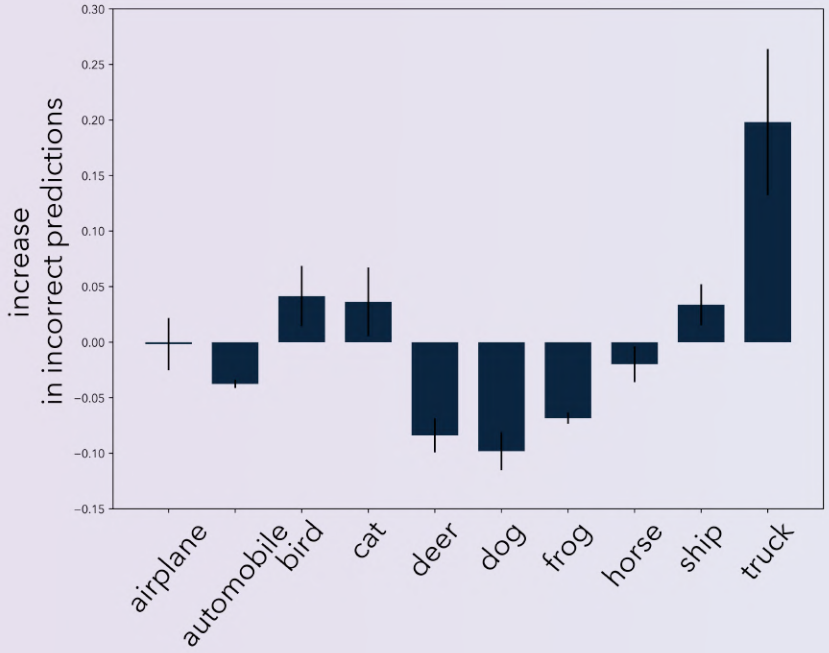

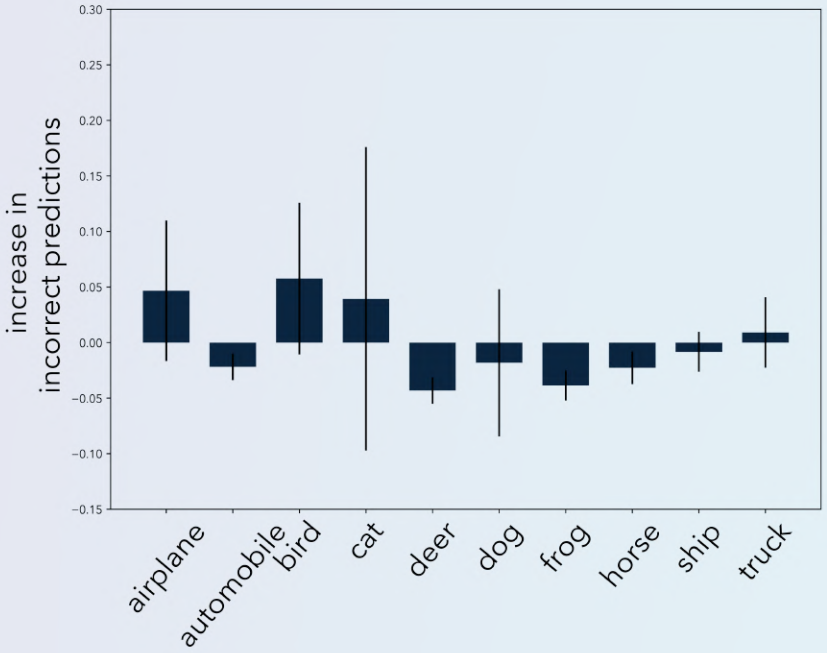

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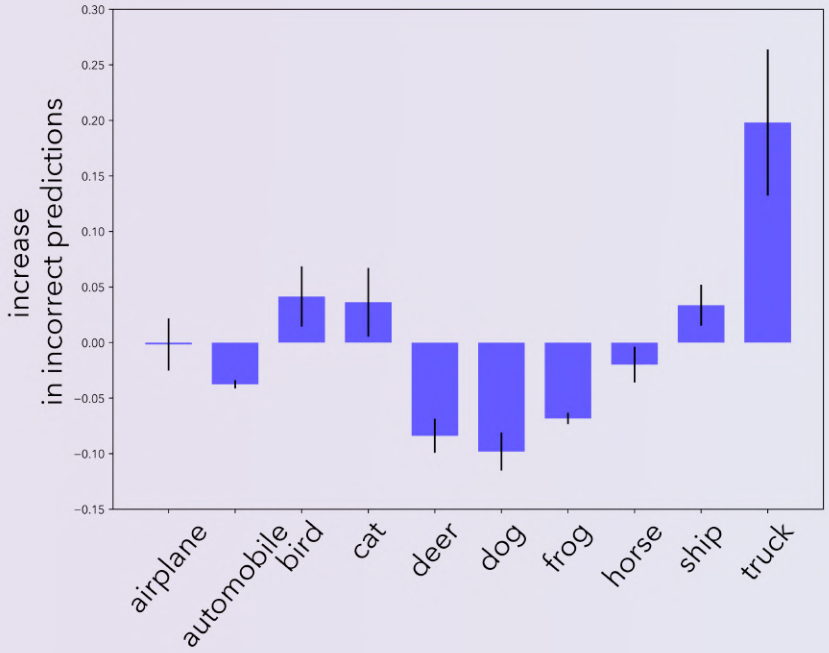

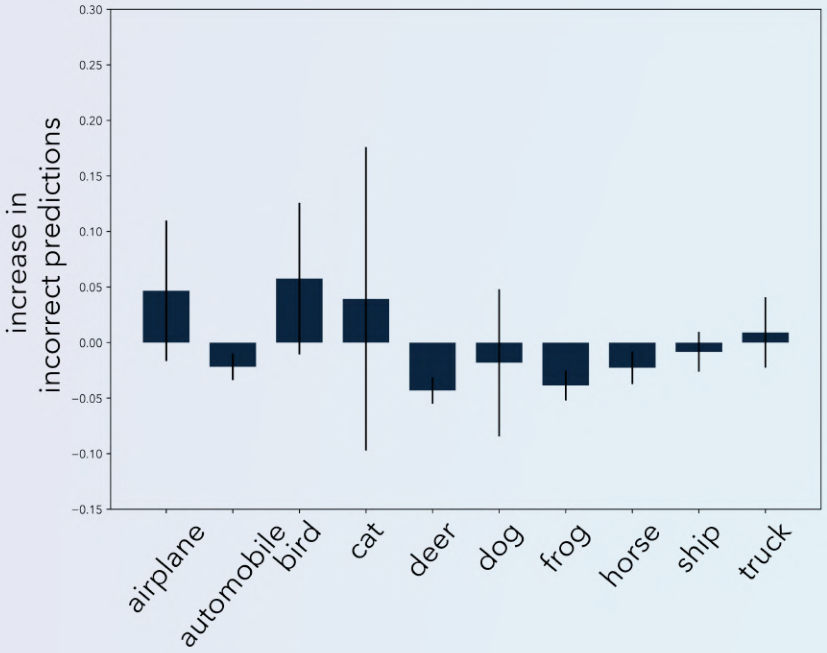

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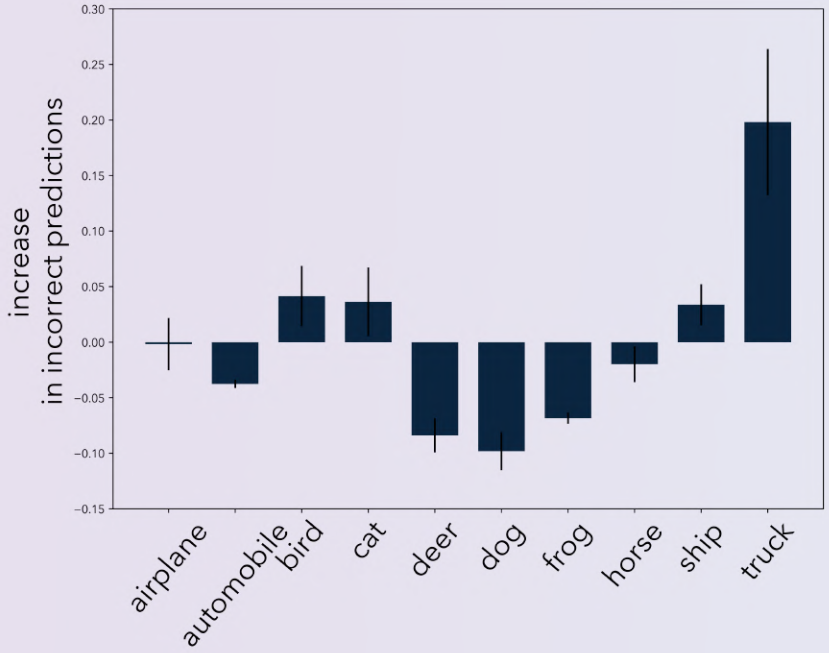

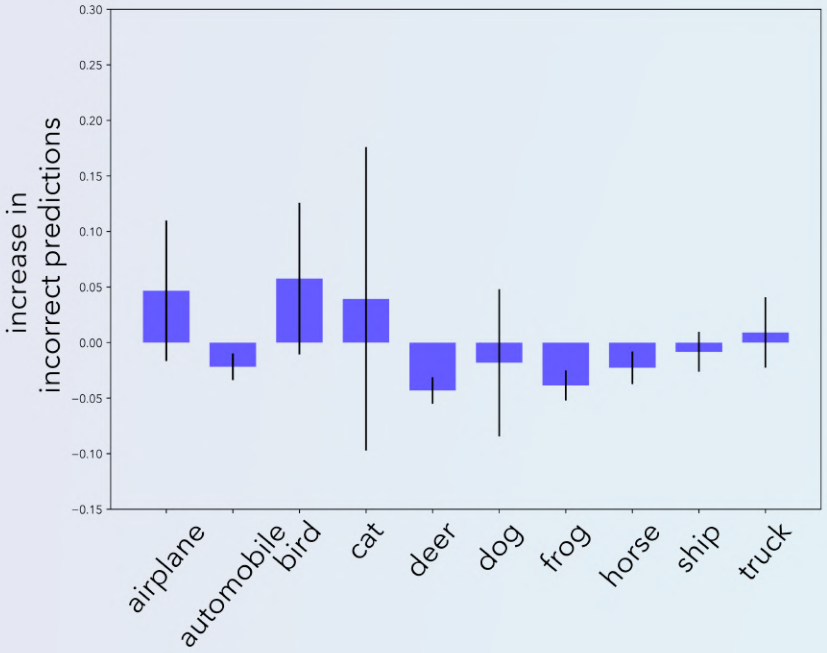

- We create an index for Data Interference

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- We propose a new method for measuring occlusion robustness

Side-effects: Training

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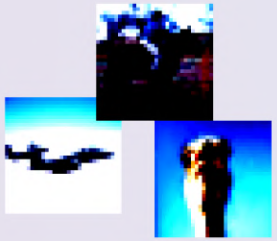
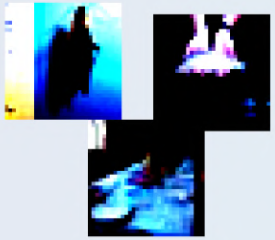
- Distribution gap is not reflective of augmentation quality

Side-effects: Training

CIFAR-10



CIFAR-100



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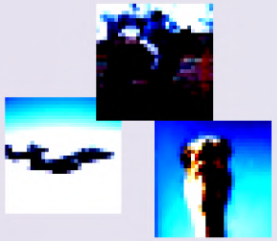

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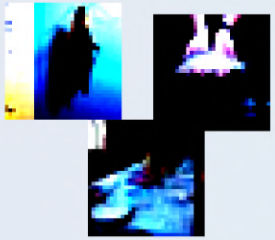

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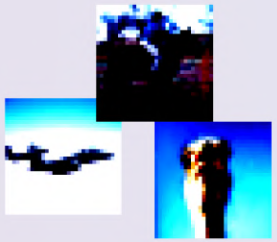

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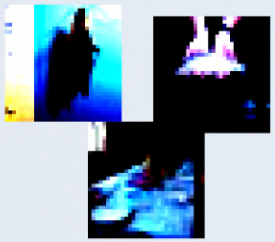

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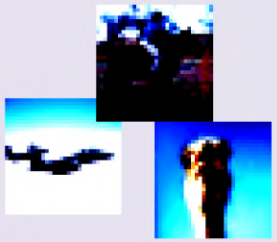

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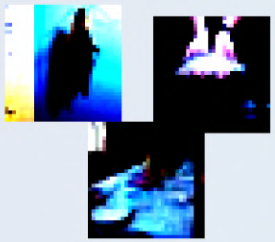

improved generalisation performance

Side-effects: Training

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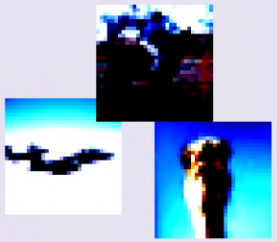

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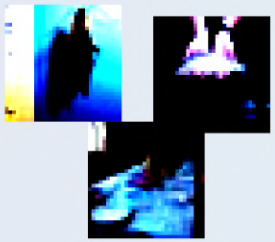

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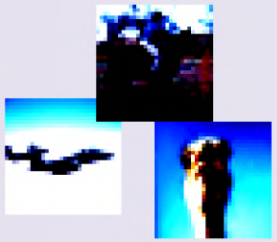

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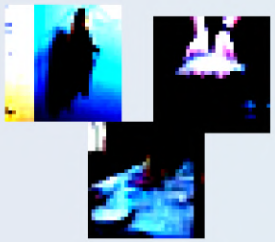

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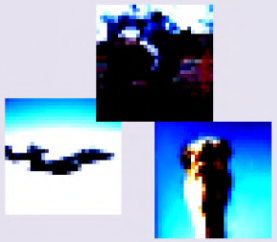

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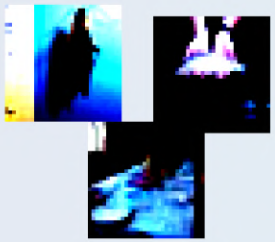

improved generalisation performance

reduced generalisation performance

Take Away Messages

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- Incorrect implicit assumptions

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- We explore and address some of them

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- We explore and address some of them
- Distortions can help us understand things better