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Visual Analytics for Machine Learning

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Propositions

1. A neural network can fit any decision function if it has enough parameters and consistent datasets.
2. Classification accuracy provides little information by itself, even for a domain expert.
3. Pre-trained deep neural networks on large datasets induce feature maps useful for classifying data even on different domains.
4. Dense visualizations can help fill in the gaps from a sparse visualization that a user's brain would have trouble with.
5. Careful planning with interpolation and transforming functions allows to embed important information into a pixel's color.
6. An interactive visual analytics workflow based on decision boundary maps and data point neighborhood information is capable of providing insights on classifier methods.