**Bureau R&D Workshop 2018**

# A Data Content Search Method

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**Abstract**

Convolution Neural Networks (CNN) have demonstrated a high level of performance in the areas of image recognition and classification. The training of such networks over large corpora of imagery has facilitated additional applications such as content-based image searching and retrieval. Here we investigate the efficacy of applying a pre-trained deep CNN to the task of content searching within large environmental datasets. We show that the learned convolution filters from a pre-trained network provide sufficient fidelity and diversity to accurately perform a content search within a dataset that is unrelated to the CNN training data.