Will ConvNets render computer vision research obsolete?

Abstract:
Deep learning based on convolutional network architectures has revolutionized the field of visual recognition in the last two years. There is hardly a classification task left, where ConvNets do not define the state-of-the-art. Outside recognition, deep learning seems to be of lesser importance, yet this could be a fallacy. In this talk I will present our recent work on convolutional networks and show that they can learn to solve computer vision problems that are not typically assigned to the field of recognition. I will present a network that has learned to be good on descriptor matching, another one can create new images of chairs, and I show two networks that have learned to estimate optical flow. I will conclude with some arguments why, despite all this, computer vision will stay a serious research field.