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FitME is an AI company that aims to create an intelligent skincare assistant that makes personalized skin health recommendations based on magnified skin images. We build an image classification network that classifies skin images into six dimensions—water, oil, elasticity, fairness, sensitivity, and porosity—with five gradation levels each. We explore state of the art convolutional neural network (CNN) models in order to achieve an optimal image classification accuracy. Moreover, we utilize image analysis techniques to amplify the distinguishing features of the skin images and improve our classification accuracy. We achieve approximately 70% classification accuracy for non-enhanced oil data and approximately 89% accuracy for enhanced oil data, showing that image enhancement is favorable to increasing accuracy. We also find that using transfer learning to train standard machine learning classifiers achieved equal accuracy, and in some cases better, indicating that CNNs may not offer greater classification ability given a relatively small data set. This work was done at the 2017 Research in Industrial Projects for Students (RIPS) program in Hong Kong and was sponsored by IPAM and the Hong Kong University of Science and Technology. (Received September 26, 2017)