

# Automatic Photo Adjustment Using Deep Learning

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# Foreground pop out local effect

Id	Input image	Adjusted image by our method	Adjusted image by our photographer
1			
2			
3			

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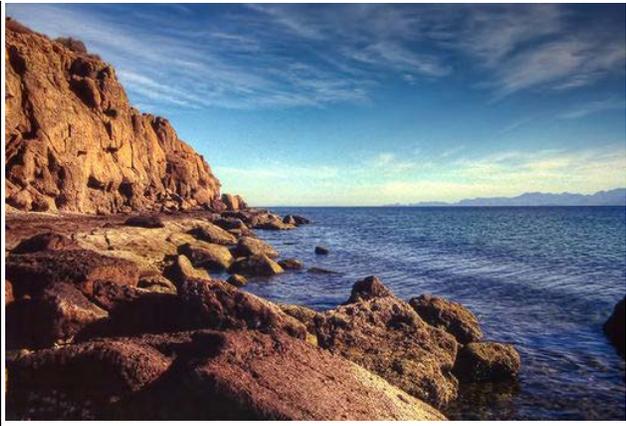


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# Local xpro effect

Id	Input image	Adjusted image by our method	Adjusted image by our photographer
1			
2			
3			

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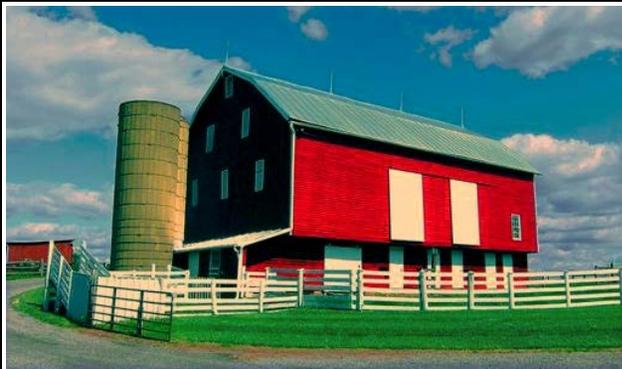
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# Local watercolor painting effect

Id	Input image	Adjusted image by our method	Adjusted image by our photographer
1			
2			
3			

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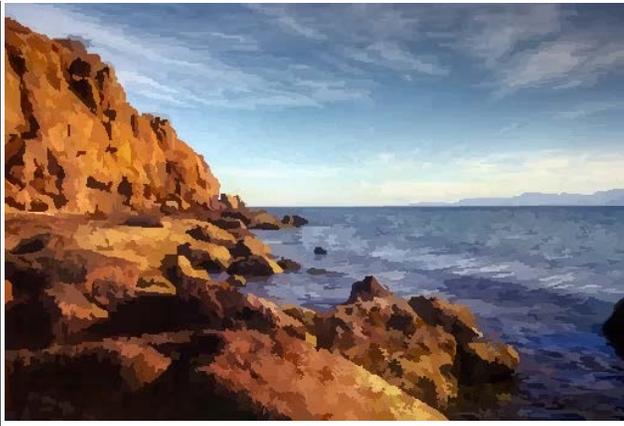


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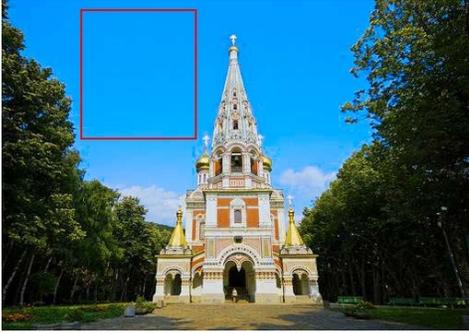
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# Comparison between results without and with our context on foreground pop out effect

Note: local areas with prominent differences are highlighted by red boxes

Id	Input image	Without context	With context	Adjusted image by our photographer
1				
2				
3				
4				

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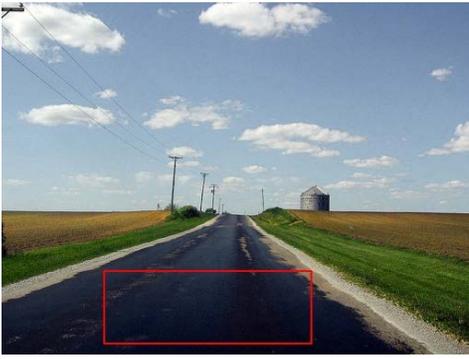
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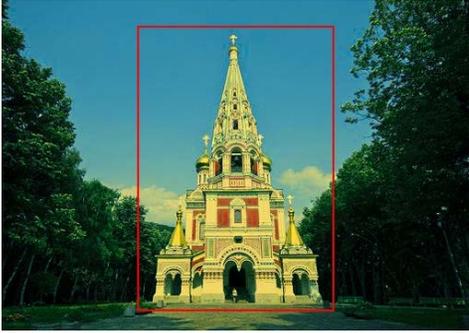


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# Comparison between results without and with our context on local Xpro effect

Note: local areas with prominent differences are highlighted by red boxes

Id	Input image	Without context	With context	Adjusted image by our photographer
1				
2				
3				
4				

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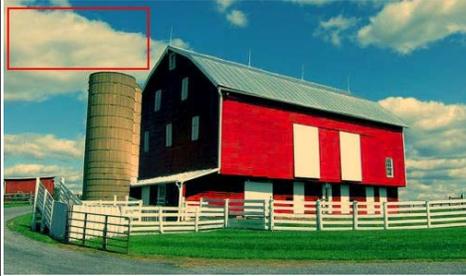
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# Comparison between results without and with our context on watercolor effect

Note: local areas with prominent differences are highlighted by red boxes

Id	Input image	Without context	With our context	Adjusted image by our photographer
1				
2				
3				
4				

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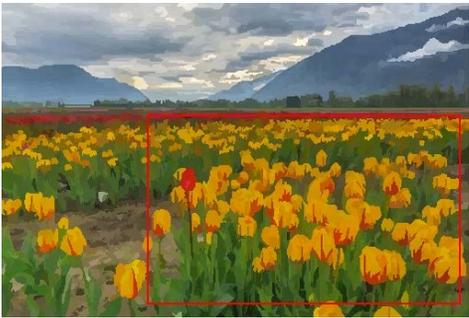
6



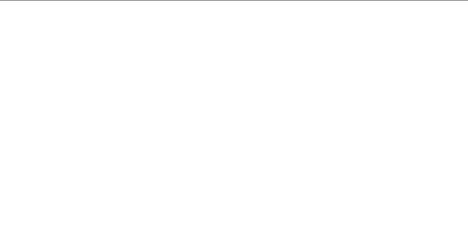
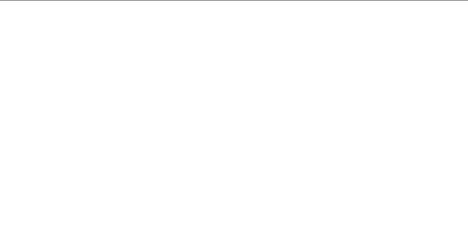
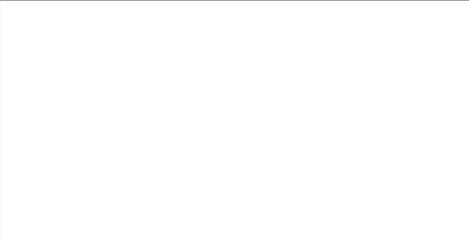
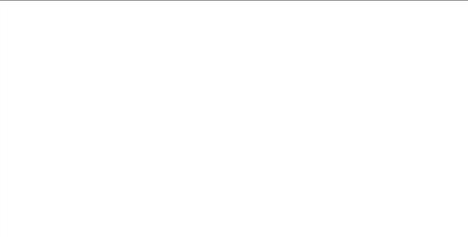
7

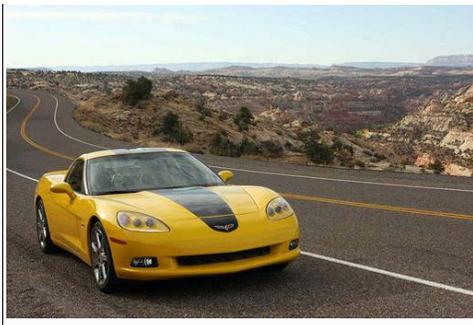


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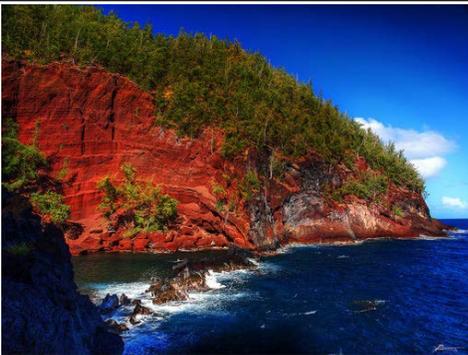


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A subset of training images for foreground pop out, local Xpro and watercolor effects

Id	Input image	Foreground pop out	Local Xpro	Watercolor
1				
2				
3				
4				

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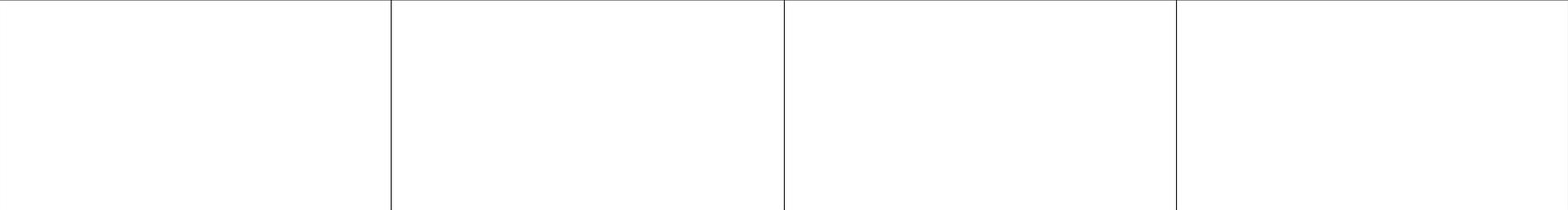
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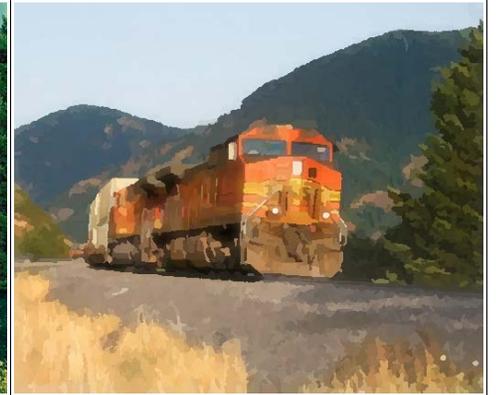
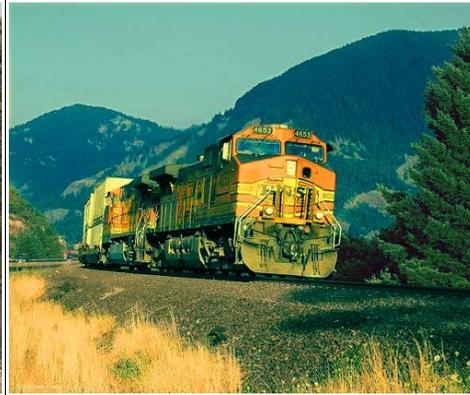
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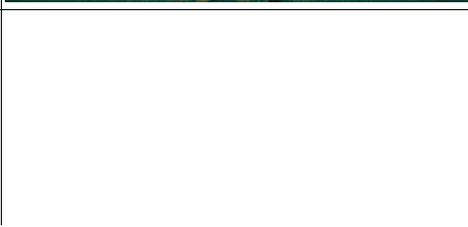
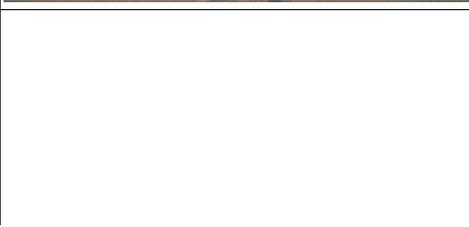
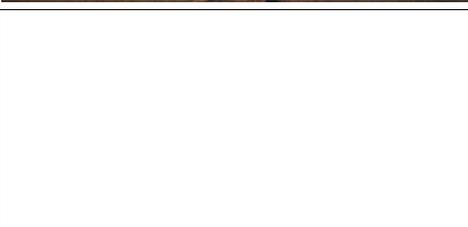
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# Comparison with [Bychkovsky et al 2011] on MIT-Adobe FiveK group C dataset

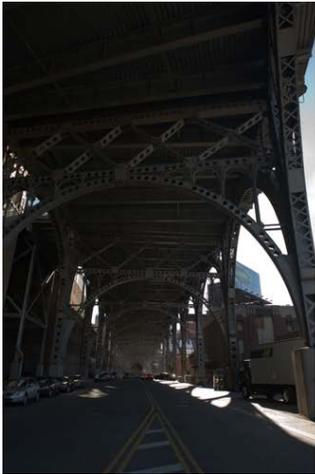
Id	From left to right: Input image, Result of [Bychkovsky et al 2011], Our result and Enhanced result by Photographer			
1				
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4				



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# Comparison with [Hwang et al 2012] on "Random 250" test set of MIT-Adobe FiveK Expert C dataset

Id	From left to right: Input image, Result of [Hwang et al 2012], Our result and Enhanced result by Photographer			
0				
1				
2				
3				

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# Comparison with [Hwang et al 2012] on "High variance 50" test set of MIT-Adobe FiveK Expert C dataset

Id	From left to right: Input image, Result of [Hwang et al 2012], Our result and Enhanced result by Photographer			
0				
1				
2				
3				

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# Our results on MIT-Adobe FiveK Expert D dataset

Id	From left to right: Input image, Enhanced image by our approach and Enhanced image by Retoucher D.		
0			
1			
2			

3



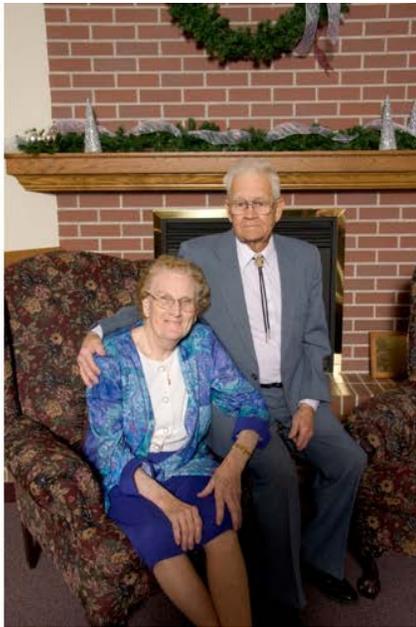
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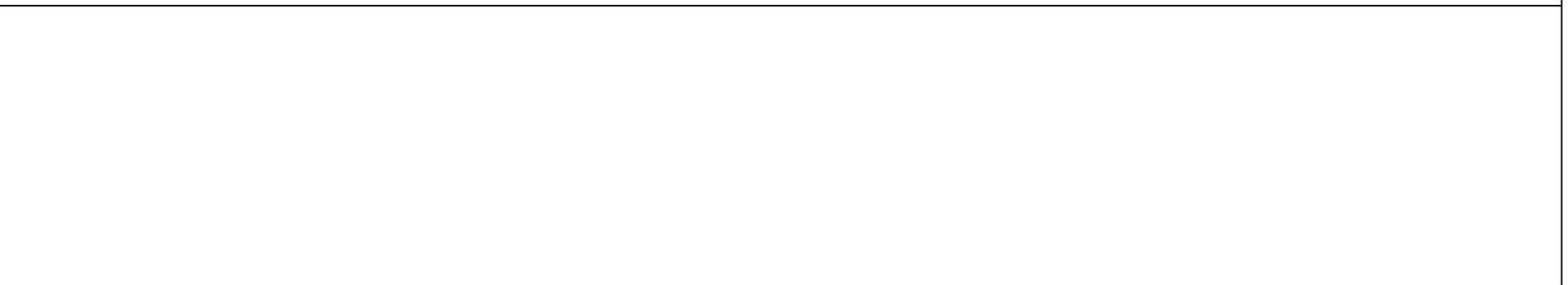
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# Our results on MIT-Adobe FiveK Expert E dataset

Id	From left to right: Input image, Enhanced image by our approach and Enhanced image by Retoucher E.		
0			
1			
2			



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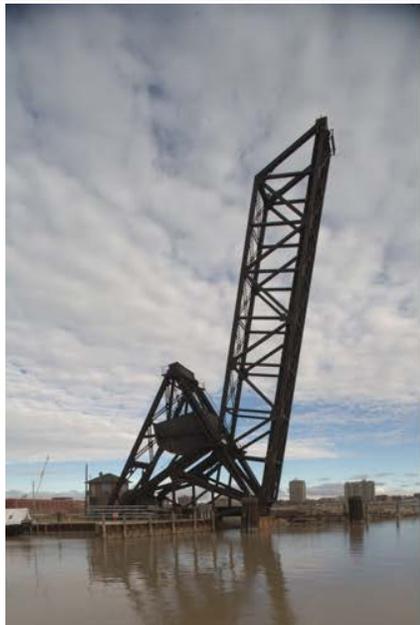
17



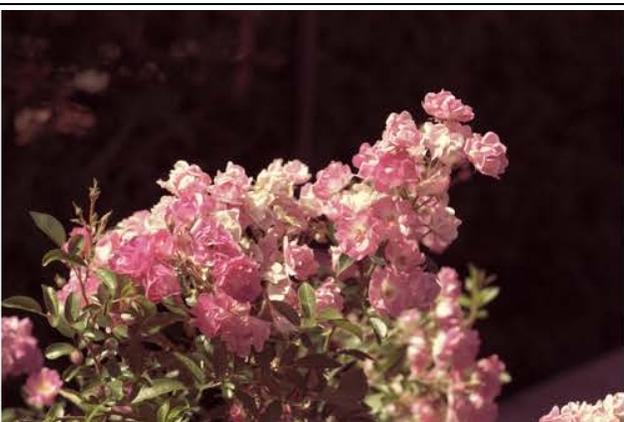
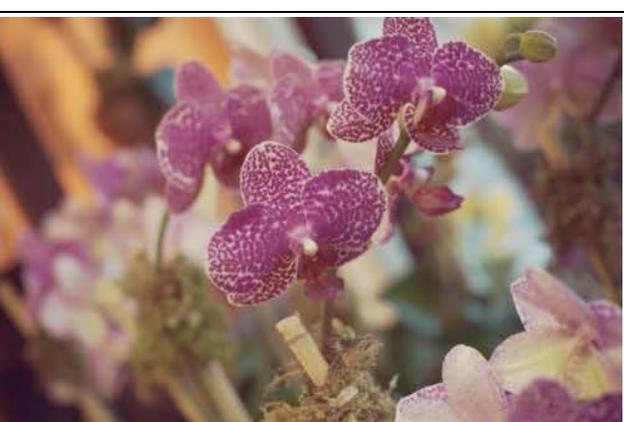
18



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# Our results on Instagram Early Bird effect

Id	From left to right: Input image, Enhanced image by our approach and Enhanced image by Instagram.		
0			
1			
2			

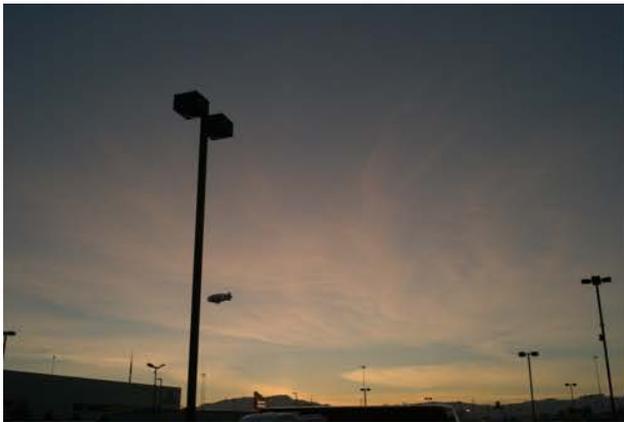
3



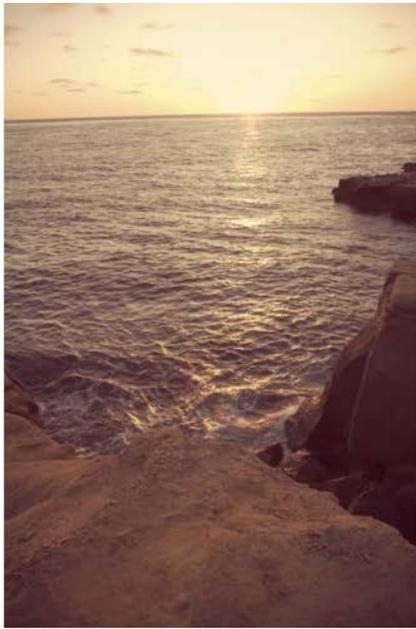
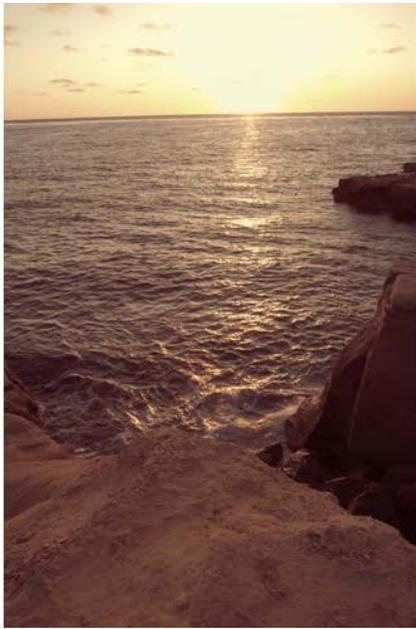
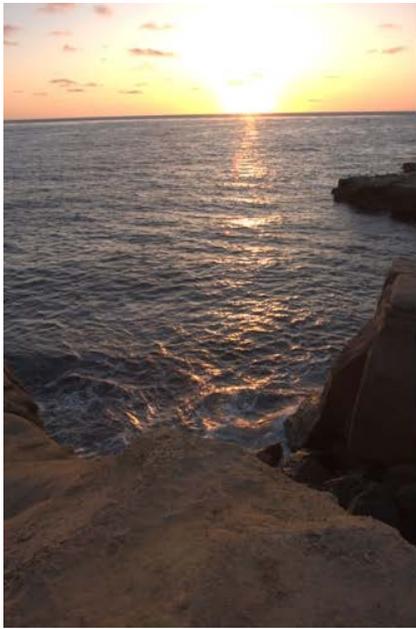
4



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# Our results on Instagram Nashville effect

Id	From left to right: Input image, Enhanced image by our approach and Enhanced image by Instagram.		
0			
1			
2			



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