
Subject: How to choose the pixels along a curve in an image

Posted by [spright](#) on Wed, 19 Mar 2014 16:35:22 GMT

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Hi guys,

I want to get the values of pixels along a curve in an image. Could anyone give some suggestions? This curve may be got by a polynomial fit to a few points on the image.

For pixels along a straight line, it is easier as I can rotate the image to leave the line in horizontal or vertical direction and choose these pixels in an array of the image, like `img[:,n]`. But seems it is difficult for the one with curve.

Any suggestions? Thanks.

Subject: Re: How to choose the pixels along a curve in an image

Posted by [David Fanning](#) on Wed, 19 Mar 2014 17:03:52 GMT

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spright writes:

> I want to get the values of pixels along a curve in an image. Could anyone give some suggestions? This curve may be got by a polynomial fit to a few points on the image.

>

> For pixels along a straight line, it is easier as I can rotate the image to leave the line in horizontal or vertical direction and choose these pixels in an array of the image, like `img[:,n]`. But seems it is difficult for the one with curve.

>

> Any suggestions?

If you really mean "pixels", I would draw the curve in a blank pixmap window, take a 2D snapshot of the window, and use `Where` to tell me which pixels in that window were different from the background color.

Armed with that information, it would be easy to convert the pixel values into the coordinate system of the image (I like to use `Value_Locate` for this if there isn't a one-to-one correspondence between the image and the display) and fish out the underlying image values.

Cheers,

David

--

David Fanning, Ph.D.

Fanning Software Consulting, Inc.

Coyote's Guide to IDL Programming: <http://www.idlcoyote.com/>

Sepore ma de ni thue. ("Perhaps thou speakest truth.")

Subject: Re: How to choose the pixels along a curve in an image

Posted by [spright](#) on Wed, 19 Mar 2014 18:46:46 GMT

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Thanks Dr. Fanning. I want to know that if there is a way to make a curved feature in an image into straight?

Subject: Re: How to choose the pixels along a curve in an image

Posted by [David Fanning](#) on Wed, 19 Mar 2014 19:20:24 GMT

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spright writes:

> Thanks Dr. Fanning. I want to know that if there is a way to make a curved feature in an image into straight?

I'm sure there is. Photoshop Lightroom knows how to do this quite easily. I don't know how to do it. :-)

Cheers,

David

--

David Fanning, Ph.D.

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Subject: Re: How to choose the pixels along a curve in an image

Posted by [spright](#) on Wed, 19 Mar 2014 19:35:31 GMT

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Ok, thanks Dr. Fanning. It seems very tricky though.

> spright writes:

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>>

Thanks Dr. Fanning. I want to know that if there is a way to make a curved feature in an image into straight?

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>

> I'm sure there is. Photoshop Lightroom knows how to do this quite

>
> easily. I don't know how to do it. :-)
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> Cheers,
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> David
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Subject: Re: How to choose the pixels along a curve in an image
Posted by [spright](#) on Wed, 19 Mar 2014 20:52:25 GMT
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btw, wrap_tri might work for this purpose.

> spright writes:
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>> Thanks Dr. Fanning. I want to know that if there is a way to make a curved feature in an image into straight?
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Subject: Re: How to choose the pixels along a curve in an image
Posted by [kagoldberg](#) on Sun, 23 Mar 2014 03:58:19 GMT
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If I understand what you're looking for, the `interpolate()` function should work for you. You can take your 2D images, and extract an arbitrary number of output values at positions you specify along an (x,y) path.

Subject: Re: How to choose the pixels along a curve in an image
Posted by [sprightzhu](#) on Sun, 23 Mar 2014 16:53:19 GMT
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On Saturday, March 22, 2014 10:58:19 PM UTC-5, kagol...@lbl.gov wrote:

> If I understand what you're looking for, the `interpolate()` function should work for you. You can take your 2D images, and extract an arbitrary number of output values at positions you specify along an (x,y) path.

Great thanks for this. I will look into it.
