

Make It Aesthetic

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About Us

Meret

- computer science
- medical technologies

Anna

- business informatics
- project management



Goals of Our Project

our motivation:

- interested in photography
- opening aesthetic photography to the public
- simplifying the aesthetic photography for the user
- being able to save every moment in beautiful photos
- bringing this knowledge into school



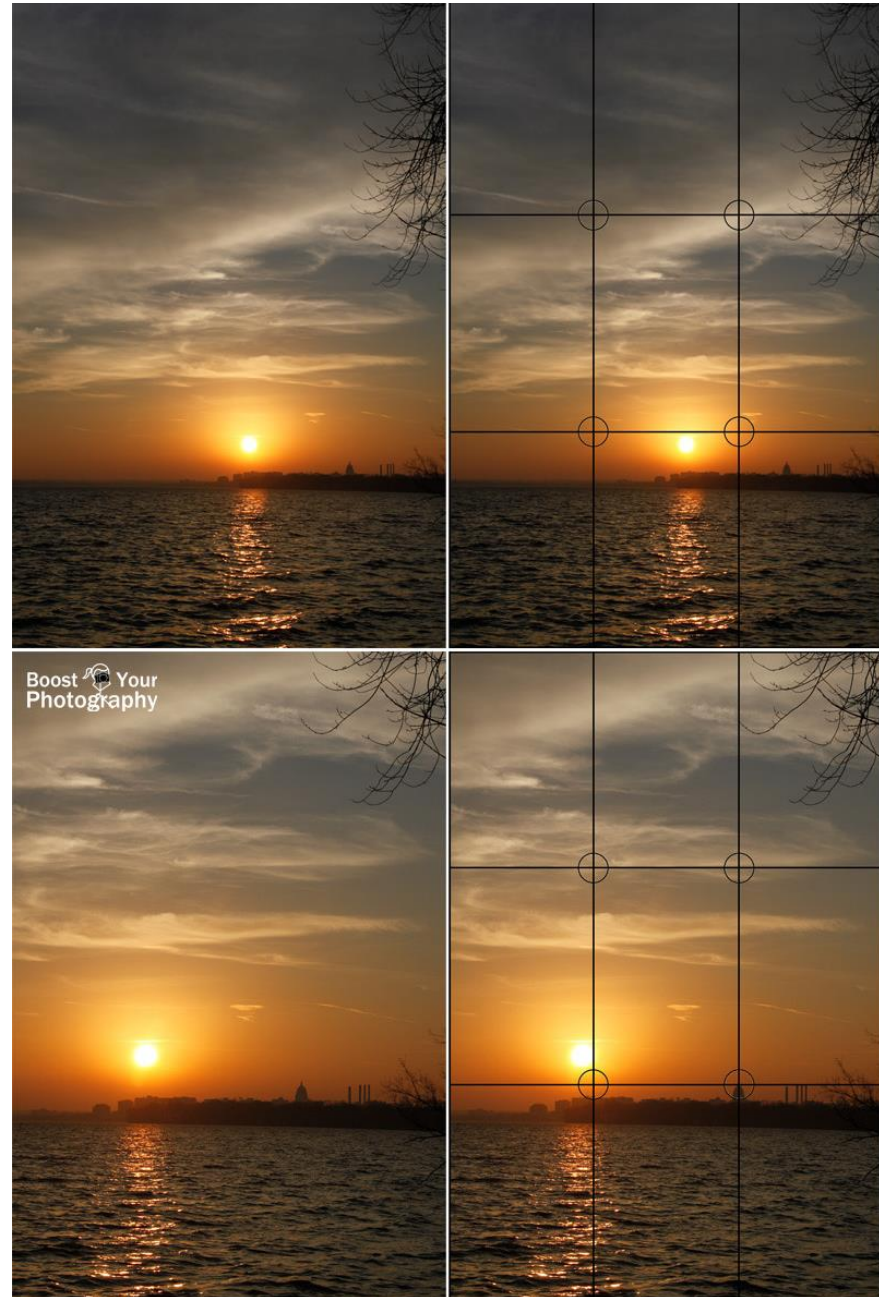
Goals of Our Project

- make given photos aesthetic
- by zooming, rotating or cropping the photo
- selecting the guideline the photo should follow



Inspirations

Rule of Thirds





Inspirations

Diagonal Dominance





Inspirations

Visual Balance



[1]



Inspirations

Golden Ratio





How to get there

- specify scenarios for different types of photos
 - › people, creatures
 - › landscape (flower, mountain, sea)
 - › buildings
- detect the main object in the photo
 - › detection of colours
 - › detection of sharpness
 - › detection of faces
- calculate the intersection for the Rule Of Thirds (ROT) in the photo
- calculate the diagonals in the photo



How to get there

- manipulate the photo to make it following the guidelines
 - › zoom
 - › shift
 - › rotate
 - › carve main object
 - › crop the photo
- print out modified photo
- wrap up with a (tutorial?) video



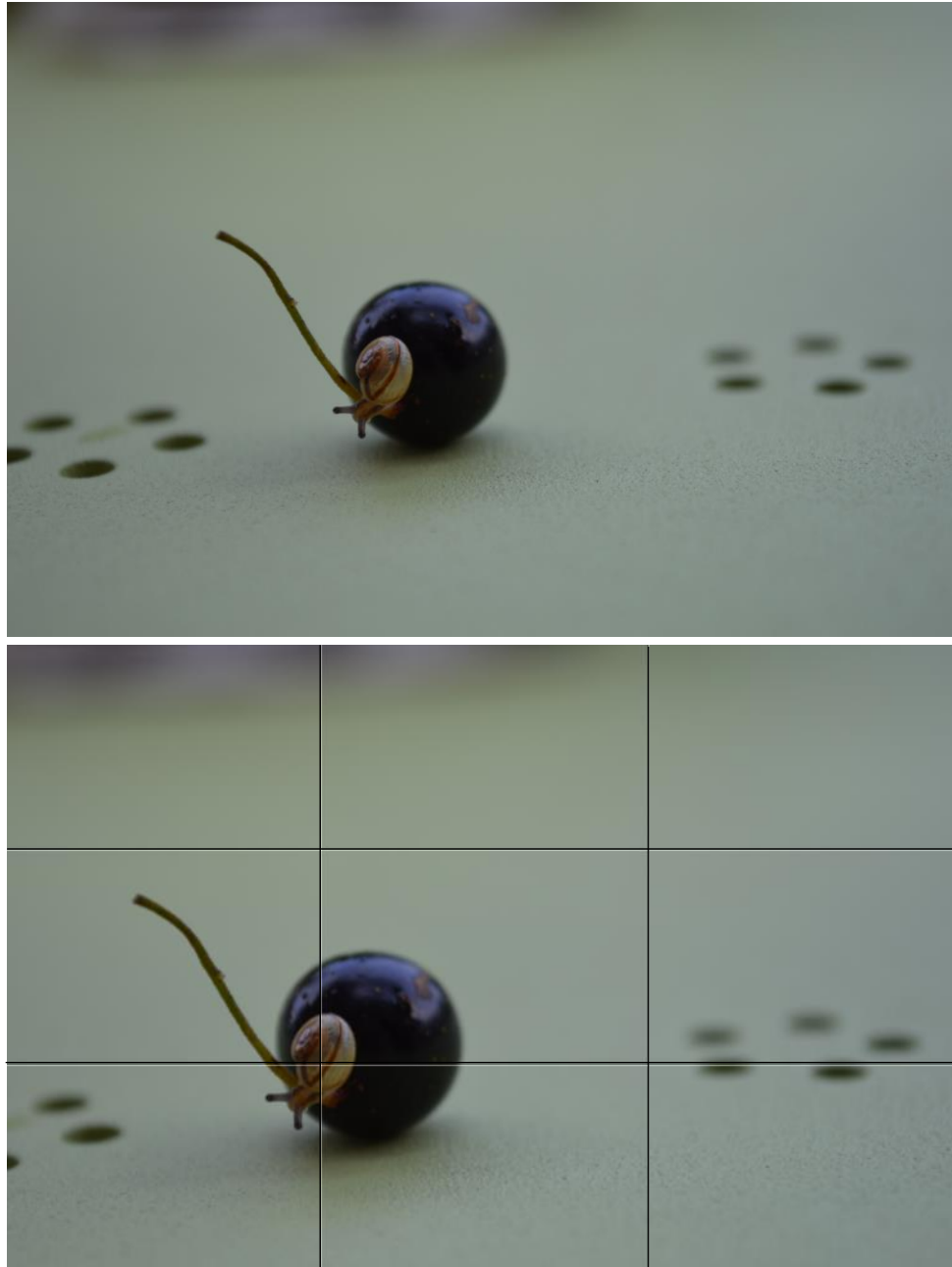
Requirements

- salient region is sharp, background is blurred
- main object is bigger than other objects
- not too complex
 - › not too many objects
 - › clear contrast of colours
 - › clear and strong lines



Possible Samples

people/creatures



[own photo]



Possible Samples

people/creatures





Possible Samples

flowers



[own photo]



Possible Samples

flowers



[own photo]



Possible Samples

mountains





Possible Samples

buildings



[own photo]



Possible Samples

buildings



[own photo]

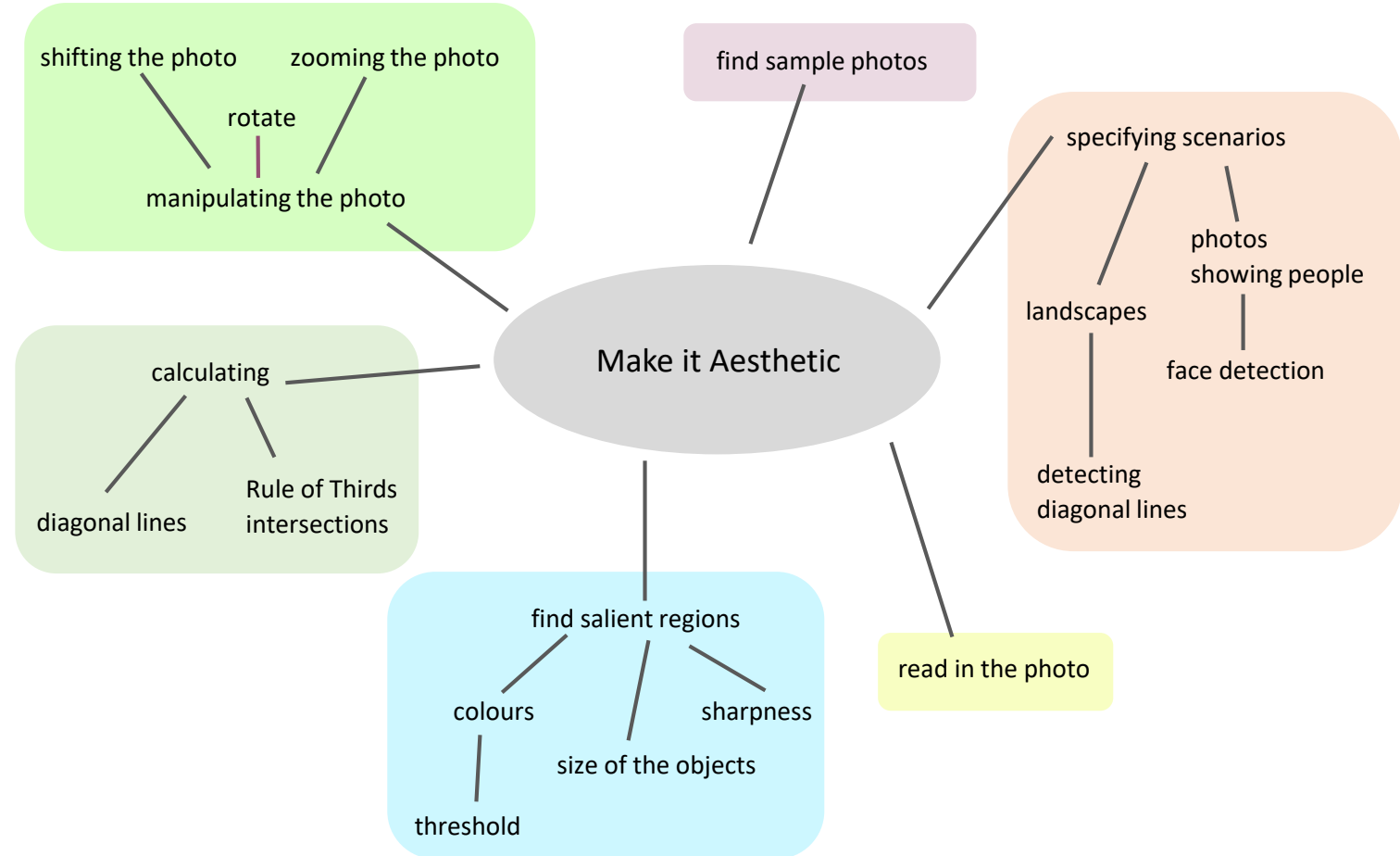


Challenges

- the order of operations is unclear
- the necessary algorithms are unclear
- unclear how to find the salient regions
- some requirements for sample photos are unclear and not complete



Milestones





Sources

Literature / Internet

[1] L.G., Liu et al.: Optimizing Photo Composition. In: The Eurographics Association and Blackwell Publishing Ltd. Volume 29 (2010), Number 2, ©2010.
<https://people.mpi-inf.mpg.de/~chen/papers/photocompos.pdf> (21.10.19)

[2] Joy, A.; K, S.: Aesthetic Quality Classification of Photographs: A Literature Survey. In: International Journal of Computer Applications (0975 – 8887). Volume 108 – No 15, December 2014.
<https://pdfs.semanticscholar.org/5f6a/821a7c11161dcdb7cba77117f7de5b024025.pdf> (21.10.19)



Sources

Pictures

[3] https://encrypted-tbn0.gstatic.com/images?q=tbn:ANd9GcQAJ7LcNQXUT0an5uu2FO_uclWI8MCq0wINJNh3oLrs-shr3_Hb5A

[4] https://s14-eu5.startpage.com/cgi-bin/serveimage?url=https%3A%2F%2Fencrypted-tbn0.gstatic.com%2Fimages%3Fq%3Dtbn%3AANd9GcQZWfCWysaxdE771fwzXw0O5-XbTyM6lseOTs3Np-wy3YRjd_pvmQ&sp=1ac7dbad5d46721ace71c66d5ef6eaa9&anticache=950487

[5] https://s14-eu5.startpage.com/cgi-bin/serveimage?url=https%3A%2F%2Fencrypted-tbn0.gstatic.com%2Fimages%3Fq%3Dtbn%3AANd9GcQDsh2JSGxEuiQueDxc8Nv3exWChiSh6WRxRrh_LeffSCXFbiysFA&sp=008dda95fde15b3ee8aea0de9351ca23&anticache=923965

[6] https://s14-eu5.startpage.com/cgi-bin/serveimage?url=https%3A%2F%2Fencrypted-tbn0.gstatic.com%2Fimages%3Fq%3Dtbn%3AANd9GcT3iuvO973pvOSXdID170UzwMG8BpK4jEAUhhKn_TxA66xG1Q6mtA&sp=53bbdbb46aa432acf38a7047d4466b5c&anticache=878088

[7] <https://s14-eu5.startpage.com/cgi-bin/serveimage?url=https%3A%2F%2Fencrypted-tbn0.gstatic.com%2Fimages%3Fq%3Dtbn%3AANd9GcRu1h232Sawz7K2gVS6mdvG4FgA2341o9MiB948lwFzfiNEZ3jucg&sp=713475b3b2390ee731eeffa98ecb9d12&anticache=207283>

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