Writing Good Papers

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Overview

Figure - Issues

Pay attention to the following issues:

- **Proper figure size.** Avoid large boring figure with less information.
- **Proper and consistent fonts, lines, and others.** Just use the black or dark blue font and no need to use the bold font.
- **Multiple sub-figures.** Save each image separately and use tabular to position the sub-figures, do not use powerpoint or others to save images into one pdf (or png) file.
- **Formats of the capture.** The first sentence of a capture is incomplete. "Table 1. The framework..." should be "Table 1. Framework...". In addition, the first letter after "Figure 1" should be capital. "Table 1. framework..." should be "Table 1. Framework"
- **Formats of its reference.** Either Figure 1 or Fig. 1 is fine, just be consistent. For sub-figure, no extra space between Figure 1 and (a), namely Figure 1(a) is right.

Poor Examples - Large Boring with Less Information

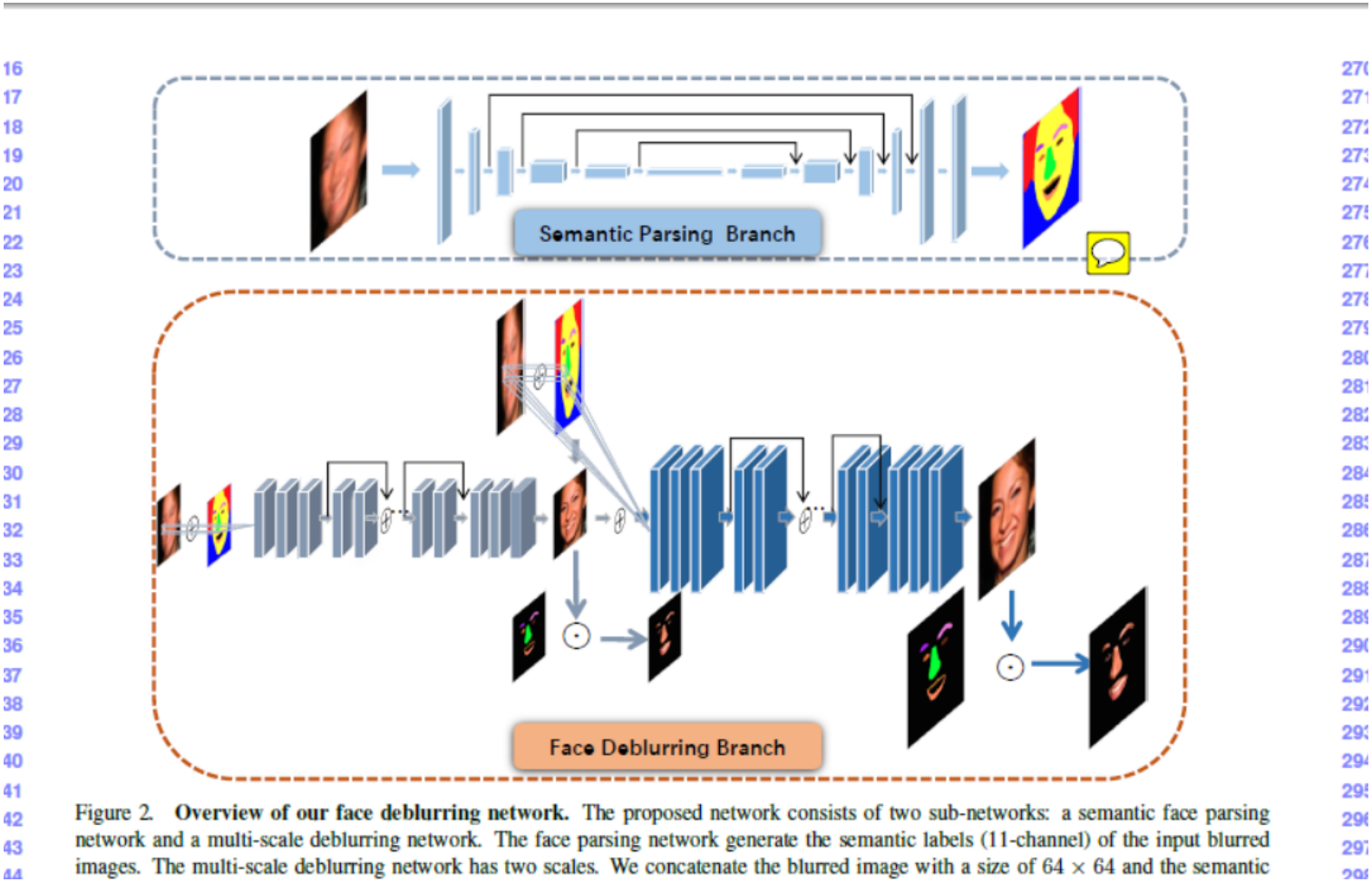

Figure 2. **Overview of our face deblurring network.** The proposed network consists of two sub-networks: a semantic face parsing network and a multi-scale deblurring network. The face parsing network generate the semantic labels (11-channel) of the input blurred images. The multi-scale deblurring network has two scales. We concatenate the blurred image with a size of 64 × 64 and the semantic

Figure: Large boring figure with less information. Use smaller figure size or add more information.

Poor Examples - Inconsistent Fonts, Bold Fonts

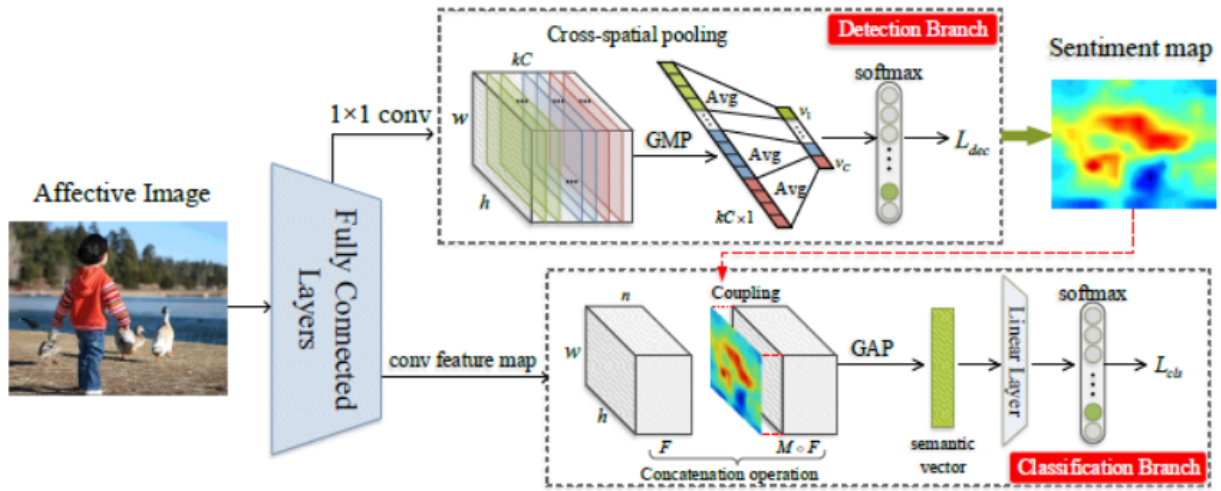

Figure: Figure with bold fonts. Just the use black or the dark blue font.

Poor Examples - Misaligned Sub-figures

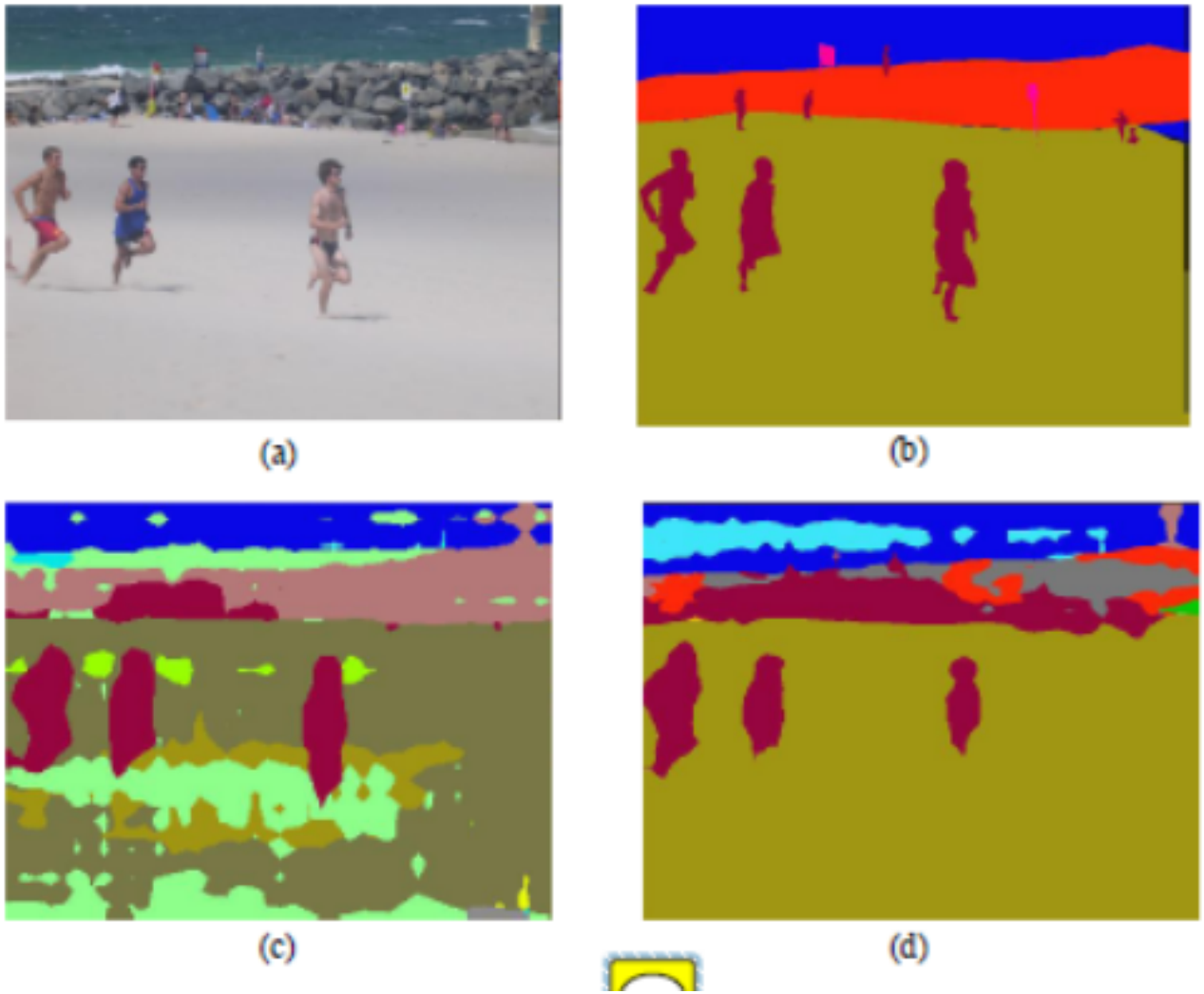

Figure: Misaligned sub-figures. Use tabular to position sub-figures.

Table - Issues

Pay attention to the following issues:

- **Do not box up tables.** Use "\usepackage {booktabs}". You can also refer to Small Guide to Making Nice Tables.
- **Use proper font size and make the table clear.**
- **Use the format "Table 1" as the table reference.**

Table - Examples

Table 1. Ablation study on the DAVIS 2016.

Method	Image	+ $Parts_{ave}$	+ $Parts$	+ $Parts$ + CRF	+ $Parts$ + CRF + Object Tracker
J Mean ↑	0.707	0.739	0.779	0.819	0.824
J Recall ↑	0.840	0.874	0.924	0.963	0.965
J Decay ↓	-0.005	0.072	0.067	0.054	0.045
F Mean ↑	0.695	0.727	0.760	0.784	0.795
F Recall ↑	0.786	0.792	0.849	0.910	0.894
F Decay ↓	-0.004	0.089	0.076	0.068	0.055
T Mean ↓	0.260	0.240	0.229	0.262	0.263

Figure: Table with bounding box.

Dimension	Step Size
θ_{z_c}	$\Theta(\varepsilon t_z)$
θ_x	$\Theta(\sin^{-1}(t_z - \frac{1}{\varepsilon + \frac{1}{t_z - \sin(\theta_x)}}) - \theta_x)$
θ_{z_t}	$\Theta(\varepsilon t_z)$
t_x	$\Theta(\varepsilon(t_z - \sqrt{2}\sin(\theta_x)))$
t_y	$\Theta(\varepsilon(t_z - \sqrt{2}\sin(\theta_x)))$
t_z	$\Theta(\frac{\varepsilon t_z^2}{1 - \varepsilon t_z})$

Figure: Nice table.

Equation - Issues

Pay attention to the following issues:

- **Use one letter for each variable.**
- **Be consistent if use punctuation at the end of each equation.** If the equation is the end of the sentence use a period, otherwise use a comma.
- **Use consistent reference format.** Either "Eq. 1" or "(1)" is fine. Just be consistent.

Section Title Formats

- **The first letter of each word should be capital.** Use "3.1 Proposed Algorithm", rather than "3.1 Proposed algorithm".
- **Use one line for a section name as possible.** Make each section name shorter to put it in one line.
- **Use consistent reference format.** A good section reference should be "As stated in Section 1, ...".
- **Use consistent formats of bold phrase items.** Either "Implementation details." or "Implementation Details." is fine. Just be consistent. A period is needed at the end of a bold phrase item.

Section Title - Examples of Good and Poor Titles

Use proper words to summary the section contents. "The" is not needed.

Poor titles

1. Experiment
2. State-of-the-art Comparison
3. The Parameter K
4. The Proposed Model

Good titles

1. Experimental Results
2. Performance Evaluation
3. Parameter Analysis
4. Proposed Algorithm

Reference - Formats

- **Be consistent.** Use consistent names for all conferences and journals.
- **Use right types.** For conference use "@inproceedings", for journal use "@Article". Refer to Bibliography Management for more details.
- **Use "@string" to ensure consistency.** A detailed command can be @string{CVPR=IEEE Conference on Computer Vision and Pattern Recognition}.
- **Do not directly copy a bibtex text from Google Scholar to your bib file!** The formats on Google Scholar are not consistent.
- **Use correct author list formats.** In bibliography, the author list should not contain commas, unless you use a different style. Use "and" instead of "," to separate author names.

Tex Skills

Use tex commands to edit some special symbols. Please refer to the tutorial Writing with LaTeX by Jia-Bin.

- Use `` and '' instead of " and ". The first double quotes are typed in with the key under the "esc" key.
- Use "\begin{itemize} \item \end{itemize}" for bullet items.
- Use "\footnote" for foot note. There is no space between the text and the foot note. Use "text\footnote" rather than "text \footnote"
- Use "\clearpage" to start a new page.

Tex command	**Output**
1 $\ell_1 $	1 ℓ_1
2 $k \in 1, \ldots, K $	2 $k \in 1, \ldots, K$
3 $\|$	3 $\|$
4 \cdot	4 $\cdot$

Word Choice - Better Words

Poor words

1. It intends to ...
2. Recent years, ...
3. Test the method
4. Verify the effectiveness of ...
5. The scheme works as ...
6. Follow [1], we ...
7. Very Often, ...
8. In summary, ...
9. Artificial images
10. As mentioned earlier
11. Popular algorithms

Better words

1. It aims to
2. In recent years,...
3. Evaluate the method
4. Validate / demonstrate the ...
5. The scheme performs as ...
6. Following [1], / Similar to [1]
7. Oftentimes / Usually, ...
8. Overall, ...
9. Synthetic images
10. As stated in Section X
11. Existing algorithms

Word Choice - Better Words

Poor words

1. Build layers
2. Outperforms
3. Besides
4. It plays a major role in...
5. Problems are still not clear
6. Many efforts
7. We search similar regions
8. The reviewer has comments on
9. Feature representation is important
10. Performs the best

Better words

1. Construct layers
2. Performs favorably against
3. Furthermore / In addition
4. It plays a critical role in ...
5. Problems remain unclear
6. Much efforts
7. We search for similar regions
8. The reviewer doubts ...
9. Features are important
10. Performs best

Word Choice - Useless Words

Do not use useless and argumentative words, use less adjectives.

Useless words

- Very
- novel
- excellent
- really
- even
- great
- outstanding
- extremely
- obviously

Word Choice - Section Specific

Issues in the Introduction Section

- **Show your contributions directly and use active sentences.** A template can be
  We make the following three contributions in this work:
  - We propose ...
  - We present ...
  - We demonstrate ...

Issues in the Related Work Section

- **Use present tense.** It is fine to introduce the related work with the present tense, which is easy to use.
- **Avoid listing methods.** Summarize the related methods and use your own words to present them.
- **Avoid using a repeated style.** A boring example is "A et al. propose...", "B et al. propose ...", "C et al. propose...". Mixed things up. A good one can be "In [1], ...", "...developed by [2]".

Word Choice - Others

- **Avoid using "'s".** Use "The results of A" rather than "A's results".
- **Avoid using ' and spell it out.** These cases include "can't, don't, isn't ..." , which should be "cannot, do not, is not...".
- **Define the abbreviated words once and only once at its first appearance.**
- **Use "first, second, third" instead of "firstly, secondly, thirdly".**
- **Do not start a sentence with math symbols.**
- **Do not use colloquial words.** The colloquial words include "Authors in [1],.. ", "The problem is addressed in papers [2, 3]".

Better Presentations - Be Concise, Clear, and Direct

Examples are listed below. Poor presentations, Good presentations.

- We conduct experiments on two datasets, i.e., the MNIST and the CIFAR-10.
  We conduct experiments on the MNIST and CIFAR-10 datasets.
- Online Learning of Convolutional Networks for Rotation and Occlusion-insensitive Visual Tracking
  Learning Online Convolutional Networks for Robust Visual Tracking
- For other Layers, we use ReLU as non-linear activation.
  We use the ReLU unit for nonlinear activation.
- On four public benchmar datasets, i.e., OTB-2013,
  On the OTB-2013, benchmark datasets,
- The lower the bar, the better the performance.
  The lower, the better.

Better Presentations - Be Concise, Clear, and Direct

Examples are listed below.

- As can be seen in Table 3 ...
  Table 3 shows ... (Use active sentences)
- Since these two vectors are normalized, their dot product is in the interval of [-1, 1]. Thats why we also apply ReLU nonlinearity.
  Since these two , we also apply ReLU for compute nonlinear response.
- Lots of efforts have been devoted to ...
  Significant efforts have been made to ...
- In this paper, we focus on making every traditional color descriptor exert their identification abilities under a simple but effective framework, and exploring a decision level ensemble (DLE) method to get the final ranking results.
  In this paper, we focus on enhancing color descriptors and exploiting a decision level ensemble method for ranking re-identification results.

Better Presentations - Be Concise, Clear, and Direct

Examples are listed below.

- Re-identification is to re-identify an individual over different non-overlapping camera views.
  Person re-identification aims to match images of the same identity over different non-overlapping camera views.
- In this paper, we aim to provide a backbone method. (weak sentence)
  In this paper, we present a backbone method.
- In fact, our method also adapts features as gradients.
  The proposed algorithm indeed ...
- At this case, we need to train H in addition to G, D simultaneously.
  At this case, H also needs to be trained, in addition to G, D simultaneously.

Common Grammar Errors

- **Missing a/an/the in front of a singular noun.**
  "Image dehazing on real image" should be "Image dehazing on a real image".
- **Using inconsistent formats when listing things in the same level.**
  "Including noise removal, dehazing, and learning image filtering" should be "Including noise removal, dehazing, and filter learning".
  "rain/dirty pixels" should be "rainy/dirty pixels".
- **Comparing unrelated stuffs.**
  "The recovered images by only Net-D are much better than the proposed methods." should be "The recovered images by only Net-D is much better than those by the proposed methods."
- **Fragment sentences.**
  "Since our goal is to find a stable object mask during the update of the segmentation model." is not a sentence.

Common Grammar Errors

- **Errors related to singular and plural.**
  "The results by only loss function (1) contains distorted color."
  "These problems usually involves filtering process."
- **Errors related to "the".**

Wrong

1. In ECO framework
2. We propose WCNet
3. Results on OTB2013
4. We apply Gaussian filter ...

Right

1. In the ECO framework
2. We propose the WCNet model
3. Results on the OTB2013 dataset
4. We apply the Gaussian filter

The End!

[0]Suggestions and questions are welcome, please contact *xinlihitsz@gmail.com*.