A TEMPLATE FOR THE *arxiv* STYLE

A PREPRINT

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ABSTRACT

This is our research paper

Keywords First keyword · Second keyword · More

1 Introduction

- Overview of the problem and the relevant background knowledge must be described in a section titled "Introduction".
- The introduction section should be around 1-1.5 pages, and certainly no longer than 2 pages using the submission template above.
- Your audience should be fellow graduate students/faculty in a different discipline. Hence, you must educate them with an easy-to-understand language, so that the readers are ready to digest the remainder of your project description. You can assume the audience has a basic background knowledge on the topics such as AI/ML/DL.
- Related works should be referenced, so that the readers can have some historical context ("what other people did/do"). However, the introduction section should not be too technical or jargony.

2 Problem Definition

If the intro section was a place for mostly lay-person's description of your project, "Problem Definition" section is where you can use technical terms to define your problem more precisely.
Be very precise and explicit about input-output parameters to your machine learning problem. For example, "I will make a machine learning model that predicts house price" is not a good problem statement. Instead, be more specific about what goes into your model and what will come out of your model. For example, "The model will take a color photograph (RGB image) of a house resized to 224-by-224 alongside other metadata including 'build year,' 'days on market,' 'square footage,' and 'school district,' and predict the dollar amount (normalized in range [0,1]) of the actual market price of the house as an output" is a better way to state your problem. If you have too many parameters to be listed in one sentence, creating a table listing inputs and outputs, as well as their data types (e.g. color image, grayscale image, time-series, scalar, string, ...) would be a great idea. The problem definition section should be around 0.5 - 1 page, but certainly no more than that.

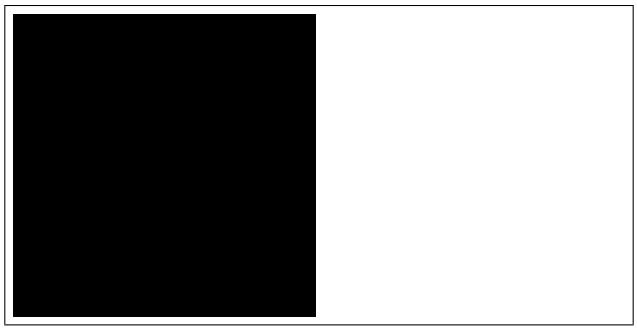

Figure 1: Sample figure caption.

Table 1: Sample table title

	Part	
Name	Description	Size (μm)
Dendrite	Input terminal	$\sim$100
Axon	Output terminal	$\sim$10
Soma	Cell body	up to 10^6

See Section 2.

2.1 Headings: second level

2.1.1 Headings: third level

Paragraph

3 Data

- What is available/not available in the data set (in conjunction with your input-output description in Problem Definition)
- How do they look like? (insert figures showing some data samples)
- How are they collected? What device/modality/sensor/etc. was used?
- How are they formatted? What do you need to do to parse them? Is there a parser available, or do you need to build your own?
- (If human subject data) A statement indicating the IRB status and compliance with other human subject research protocols.

3.1 Figures

Figures
See Figure 1. Here is how you add footnotes. [1]

3.2 Tables

See awesome Table 1.

References

[1] George Kour and Raid Saabne. Real-time segmentation of on-line handwritten arabic script. In *Frontiers in Handwriting Recognition (ICFHR), 2014 14th International Conference on*, pages 417–422. IEEE, 2014.

[1] Sample of the first footnote.

[2] George Kour and Raid Saabne. Fast classification of handwritten on-line arabic characters. In *Soft Computing and Pattern Recognition (SoCPaR), 2014 6th International Conference of*, pages 312–318. IEEE, 2014.

[3] Guy Hadash, Einat Kermany, Boaz Carmeli, Ofer Lavi, George Kour, and Alon Jacovi. Estimate and replace: A novel approach to integrating deep neural networks with existing applications. *arXiv preprint arXiv:1804.09028*, 2018.