PROJECT PROPOSAL TEMPLATE

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Contents

Abstract

(200 words maximum) The abstract should state the motivation, that is, why the study will be done or which problem will be addressed, which method will be used, as well as the expected results and contributions or implications of the work. Give details. See for example the abstract in (Krizhevsky, Sutskever, & Hinton, 2017).

1 Graphical abstract

Include a graphical abstract of the proposal including the motivation, method, expected results and contributions, see Figure 1. Examples can be found in (Elsevier, 2024; Velarde et al., 2024).

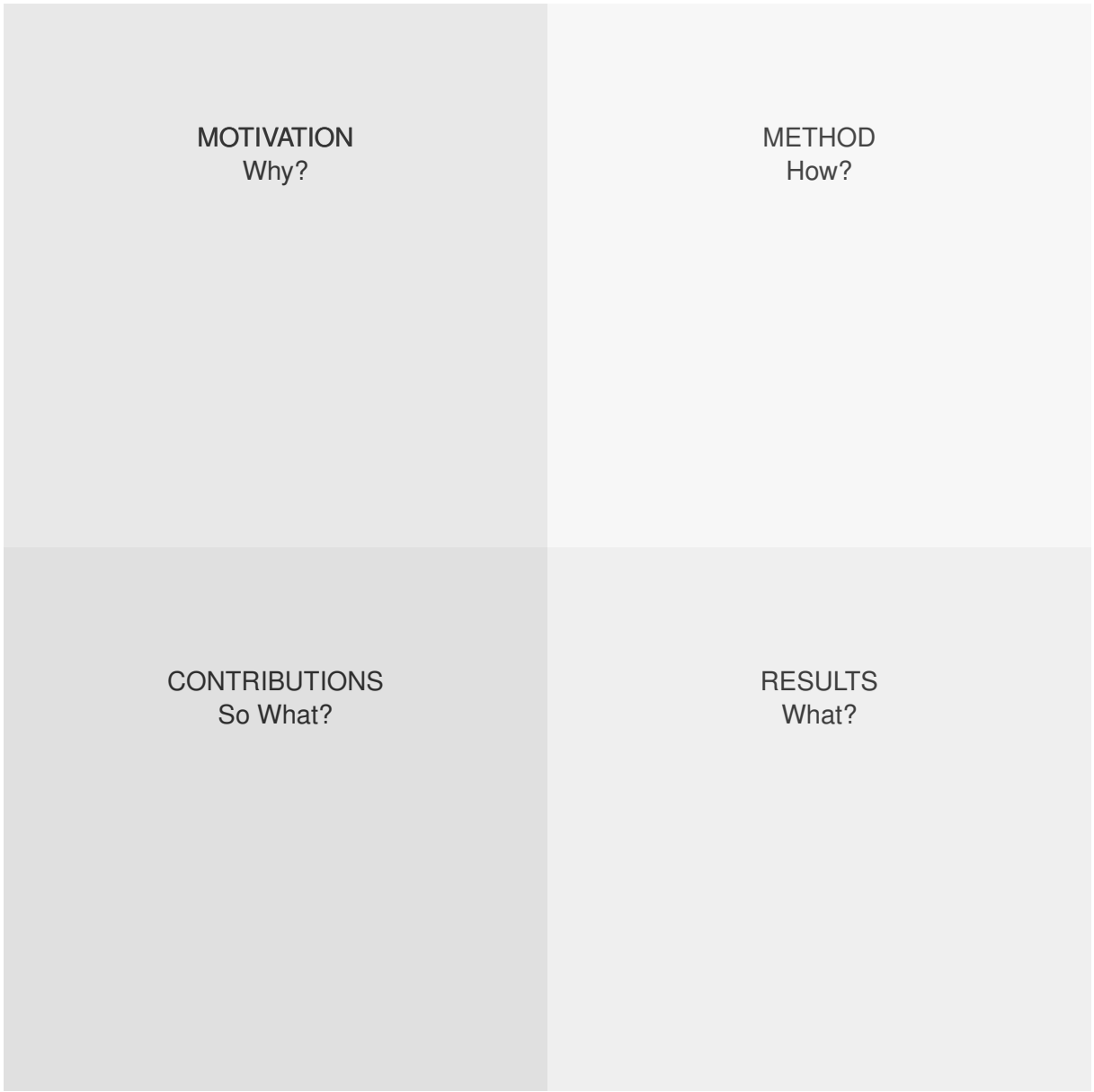

Figure 1: Graphical Abstract.

2 The State-of-the-art

(100 words maximum, 4 research papers minimum) Describe and reference the state-of-the-art, primarily focussing on peer-reviewed scientific publications. Explain how these works relate to your proposal. Use the American Psychological Association (APA) style for citations (Hughes et al., 2017).

3 Objectives

(150 words maximum) Describe the main objective and sub-objectives of the project. Alternatively propose a hypothesis and its research questions.

4 The method

(150 words maximum, 1 Figure) Describe the intended method, techniques, and evaluation framework. Include a Figure that explains the intended method. See for example Figure 1 in (Sossi-Rojas et al., 2023), or Figure 2 in (Badrinarayanan et al., 2017).

4.1 Data

(Minimum 1 Dataset) List and describe the dataset or datasets to be used.

5 The plan

Include a Gantt chart with tasks and their expected duration.

6 Expected Contributions

(Maximum 5 sentences of less than 25 words each) List 5 expected contributions of your proposed project.

7 Agreements and constraints

(100 words maximum) State if:

- the work can be published without restrictions, or
- if it needs a confidentiality agreement.
- In addition, mention the stakeholders if any.

References

Badrinarayanan, V., Kendall, A., & Cipolla, R. (2017). Segnet: A deep convolutional encoder-decoder architecture for image segmentation. *IEEE Transactions on Pattern Analysis and Machine Intelligence*, *39*(12), 2481-2495. doi: 10.1109/TPAMI.2016.2644615

Elsevier. (2024). *Graphical abstract.* `https://www.elsevier.com/researcher/author/tools-and-resources/graphical-abstract`. ([Online; accessed 4-April-2024])

Hughes, J. L., Brannan, D., Cannon, B., Camden, A. A., & Anthenien, A. M. (2017). Conquering apa style: Advice from apa style experts. *Psi Chi Journal of Psychological Research*, *22*(3), 154–162.

Krizhevsky, A., Sutskever, I., & Hinton, G. E. (2017). Imagenet classification with deep convolutional neural networks. *Communications of the ACM*, *60*(6), 84–90.

Sossi-Rojas, S., Velarde, G., & Zieba, D. (2023). A machine learning approach for bitcoin forecasting. *Engineering Proceedings*, *39*(1). Retrieved from `https://www.mdpi.com/2673-4591/39/1/27` doi: 10.3390/engproc2023039027

Velarde, G., Weichert, M., Deshmunkh, A., Deshmane, S., Sudhir, A., Sharma, K., & Joshi, V. (2024). Tree boosting methods for balanced and imbalanced classification and their robustness over time in risk assessment. *Intelligent Systems with Applications*, *22*, 200354. Retrieved from `https://www.sciencedirect.com/science/article/pii/S2667305324000309` doi: https://doi.org/10.1016/j.iswa.2024.200354