

Application Description for Data Analytics

“Title of Project”

Your Name

Date

Put an abstract with a short description here. It should contain sufficient information to assign appropriate reviewers. This abstract is also intended to be published in the Web for the general public. Please provide an English and a German version if possible. The abstracts should be between 200-500 words for each language.

1 Introduction

Introduction into the general topic. Motivation. Why is it important to do what you intent to do. Please note: you can write this application in English or German. In any case you should provide an English AND German abstract for public use.

2 Scientific Background

2.1 Field of Research

Describe the general scientific background of your project. It should demonstrate your knowledge about the field, describe the state of the art and include appropriate citations (from yourself and the state of the art in the field). You should also add a note which of these publications where enabled by the use of resources at ZIH.

2.2 Funding

Please tell us if your project is funded by anyone like EU, BMBF, DFG,.. and the specific project number.

2.3 Specific Project Research

Describe what you specifically try to do in the frame of THIS project, with the compute time you apply for. The information provided here will not be given to the public, only to ZIH and the reviewers. Please add appropriate citations of your previous work in this field.

3 Computational Methods

3.1 Applied Computational Methods and Programs

Describe the algorithms and programs used. Do you develop the program code yourself or do you use external program packages (public domain or commercial)? Is the source code available? If so, which special libraries are used or should be provided? Which programming language(s) will be used?

Please classify your work thematically: For example, does this project belong to the field of Deep Learning, another field of Machine Learning / AI or Data Mining? Should mass data, e.g. with image or video editing or similar, be transferred to the area of data mining? Should mass data be evaluated?

3.2 Previous Work

Which invoices/models have you carried out so far? Which computer systems or platforms were used? Are there any empirical values or special requirements for the memory connection (main memory)?

3.3 Storage concept

Describe the type, scope and formats of the data used. Are pre-processing steps in the data analysis planned or necessary?

Which storage technologies do you need? Do you need access to the flash memory or object memory? If necessary, also information on the number of CPUs/GPUs required.

Do you use NVME with block devices or/and file system?

4 Related Work

Describe related work. Will the planned method be used successfully elsewhere? Which problem size is state of the art? If you use another method: what is the advantage?

5 Justification of Required Resources

In the light of the previous section you should clearly describe why you need the CPU time to achieve your project plan. Please provide the amount of resources you need here together with an justification, including how you calculated the required amount. This includes CPU time as well as Disk storage. It also should include the reason for the selection of the target platform. Keep in mind: the Bull cluster TAURUS is targeted towards capacity computing with many small jobs. The SGI UV2000 VENUS is for capability computing and jobs with large memory requirements.

5.1 Special Resource and Support Requirements

Are you planning to process data from external systems (e.g. database systems, repositories) and if so which ones? Are you planning to process stream data that does not need to be buffered, for example, from sensor networks? What are the requirements for data acquisition?

Is it planned to use container technologies or virtual machines?

6 Partners

List of project partners (industry, research).

7 Summary and Conclusion

Your final words here.

8 Information respectively contract research

Please give us a short information if your project is contract search. Please mark it with a cross. Thank you very much!

NO
<input type="checkbox"/>

YES
<input type="checkbox"/>

References

[1]

