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FAU Open Research Challenge: Seeking intelligent source code for paleontology and a gaming idea for art history

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With its third FAU Open Research Challenge, the Friedrich-Alexander-Universität Erlangen-Nürnberg (FAU) is targeting international young talents or teams of young researchers who have a weakness for big data, algorithms, and gaming. Participants will solve challenges in the fields of paleontology or digital humanities - and so make an important contribution to research in these areas. However, they do not need to be paleontology or humanities graduates to apply! The platform is now open at www.openresearchchallenge.org.

The winning teams win a one-week all-expenses-paid stay at FAU in Erlangen-Nuremberg to discuss possible solutions with their challengers - and to get to know the region; an exciting program will be organized by the university. The challenge is open until February 1, 2021. The stay in Erlangen-Nuremberg is planned for the late spring of 2021 - however, depending on the Corona situation, it can also be postponed or redefined with the winning teams.

The Paleontology Challenge: Developing a data-cleansing algorithm for the Paleobiology Database

Many paleontologists work with the so-called Paleobiology Database (PBDB), one of the largest collections of fossil data in the world, with currently more than 1.2 million entries. However, this database is growing so rapidly that it is virtually impossible for researchers to check each individual data set for quality and correctness before running an analysis. A solution is therefore sought as to how the database can be cleaned of duplicates and (taxonomically) incorrect entries with the help of an algorithm.

The basis for the challenge is the database of the PBDB. The code should preferably be submitted in the programming language R, as it is considered a scientific standard in this context, but other "languages" and even non-programmable solutions (e.g. plausibility tests) are permitted as well.

All details about the challenge at: https://openresearchchallenge.org/FAU/paleontologychallenge





The FAU Open Research Challenge for young international researchers is entering its third round with

Uwe Niklas FAU/Uwe Niklas The ANNOtator Challenge: Developing a game to annotate data while having fun

If a computer is to learn to recognize and reproduce patterns in images or pieces of art, it needs thousands and thousands of training data. For this purpose, large databases are operated around the world, which are mainly based on photographs. But images from history, such as works of art and graphics, come from their own visual culture, they can differ from the photo, and show large regional and epochal differences. That is why the experts from the digital humanities – in this case, art history – need a large number of comments and annotations. These include annotations to images, so that the computer can learn to correctly understand the content and subject of the image, to grasp historical objects and sort the works of art by criteria.

No question that annotating thousands of images and teaching the computer to learn can be tedious work. But if the whole thing happens as part or goal of an online game, the fun factor increases. Games of this type already exist, but they are often too simple and quickly get boring.

The ANNOtator Challenge is looking for a game idea in which the annotation itself is the source material and capital of the player: You trade with things, literally taken out of the images. This could be pitchers, fruit, furniture, flowers, weapons, and many other popular goods at the time. Game concepts to be submitted should include an exciting, complex game situation, creative tasks, the description of an intuitive user interface, inspired by the great works of art that need to be annotated. Also important: considerations about the marketing concept. How do we get people around the world to want to play the game?

All details about the challenge at https://openresearchchallenge.org/FAU/annotatorchallenge

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Weitere Informationen:

https://openresearchchallenge.org

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