Job offer

Wednesday, 02 June 2010

We are permanently looking for enthusiastic prospective employees who have the desire to participate on our interdisciplinary research. Candidates of different backgrounds are welcome including undergraduate and graduate students. At least the first (bachelor) university degree in mathematics, computer science, physics, biology or medicine is required. Finished Ph.D. degree or a desire to pursue Ph.D. studies is an advantage. Information about Ph.D. studies in computer science is available here. Ph.D. studies in other fields mentioned above are also possible.

Any further questions or non-formal applications accompanied by a CV should be sent to Michal Kozubek .

Currently we offer the following positions:

Postdoc and PhD positions in biomedical image analysis (currently open)

One postdoc and up to two PhD positions are available at the Centre for Biomedical Image Analysis (CBIA), which is a research division of the Faculty of Informatics of Masaryk University, Brno, Czech Republic. Brno is the second largest Czech city with a rich history, splendid surroundings, several universities and several scientific parks. It ranks high in quality of life and belongs to the best student cities . Masaryk University is the largest university in Brno with over 30,000 students and the second largest in the Czech Republic. Faculty of Informatics is the oldest and leading academic centre for education and research in computer science in the Czech Republic with over 2,000 students.

The focus of CBIA is the development and validation of novel methods in a broad range of biomedical imaging applications with emphasis on cell imaging using optical microscopy. Research topics include image analysis, image segmentation, object tracking, image filtering, image restoration, image registration, image acquisition and also simulation of image formation and electronic detection. Methods for automated image acquisition and analysis are being developed and tested on real microscopy systems capable of high-quality 3D cell imaging including time-lapse imaging. Key to the success of the group is close collaboration between people of different backgrounds and handling the whole pipeline of cell cultivation, staining, acquisition and analysis. CBIA has also close collaboration with clinical partners. Currently the group consists of about 20 people including researchers, PhD students and technicians.

The candidate is encouraged to work in one of the above-mentioned areas and collaborate with researchers of a different background. Especially involvement in one of the following topics is welcome:

- Machine learning techniques applied to cell segmentation and tracking
- Energy-based techniques applied to cell segmentation and tracking
- Adaptive mathematical morphology techniques applied to cell segmentation and tracking
- Simulations and modelling of live cell dynamics
- Study of accuracy and precision of measurements in microscopy using simulations

The length of the postdoc appointment will be 1 year with a possibility of prolongation for another 2 years. The preferred starting date is January 1, 2018. The deadline for applications is November 15, 2017. Candidates are expected to have (or be about to defend) a PhD degree in Computer Science, Electrical Engineering, Biomedical Engineering, or related areas, with demonstrated contribution to the field. Good knowledge of English language is expected as well as at least 2 years spent at a university outside Czech or Slovak Republic. Required documents are a detailed CV, list of publications, motivation letter and names of at least 2 experts to provide reference. We offer paid trips to conferences, summer schools and other training events, in accordance with candidate’s actual interests, as well as the possibility to build a small student team working on the project. Applications should be submitted to Michal Kozubek (see contact above).

The length of the PhD appointment will be 1 year with a possibility of prolongation for another 3 years. The preferred starting date is February 15, 2018. The deadline for applications is January 5, 2018 but applicants are strongly encouraged to get in touch with us by November 30, 2017, to sort out details. Candidates are expected to have (or be about to defend) a Master degree in Computer Science, Electrical Engineering, Biomedical Engineering, or related areas, with demonstrated overview in the field. Good knowledge of English language is expected as well as willingness to spend 3-6 months in a collaborating group abroad during the PhD studies. Required documents and submission procedure are described in the Application Submission section of Admission Information for Doctoral Studies. These positions are

mainly financed by the Czech Science Foundation (Centre of Excellence project No. 302/12/G157).

Software developer and technician for biomedical image analysis core facility (currently closed)

A software developer and technician positions are available at the Centre for Biomedical Image Analysis (CBIA), which is a research division of the Faculty of Informatics of Masaryk University, Brno, Czech Republic. Brno is the second largest Czech city with a rich history, splendid surroundings, several universities and several scientific parks. Masaryk University is the largest university in Brno with over 30,000 students and the second largest in the Czech Republic. Faculty of Informatics is the oldest and leading academic centre for education and research in computer science in the Czech Republic with over 2,000 students.

The focus of CBIA is the development and validation of novel methods in a broad range of biomedical imaging applications with emphasis on cell imaging using optical microscopy. Research topics include image analysis, image segmentation, object tracking, image filtering, image restoration, image registration, image acquisition and also simulation of image formation and electronic detection. Methods for automated image acquisition and analysis are being developed and tested on real microscopy systems capable of high-quality 3D cell imaging including time-lapse imaging. Key to the success of the group is close collaboration between people of different backgrounds and handling the whole pipeline of cell cultivation, staining, acquisition and analysis. CBIA has also close collaboration with clinical partners. Currently the group consists of about 20 people including researchers, PhD students and technicians.

From January 1, 2016, CBIA became part of the national research infrastructure Czech-BioImaging and serves as a core facility for biomedical image analysis in the Czech Republic. It also offers automated live cell image acquisition services using spinning disc confocal microscopy.

The candidate is expected to join this core facility and help provide support to its users. The software developer will find suitable solutions to biomedical image analysis problems of users using existing or newly developed software or modules. Experience with parallelization of image analysis is welcome. The technician will take care of smooth functioning of laboratory hardware (mainly servers) and help researchers with routine programming tasks in the area of image analysis. Therefore, knowledge of at least basics of image processing is required also for the job of technician.

The length of the appointment will be initially 1 year with a possibility of prolongation. Part-time employment (e.g., for students) is also possible. The positions are available immediately and will be open until filled. Candidates are expected to have (or be about to defend) at least the first (bachelor) university degree in Computer Science, Electrical Engineering, Biomedical Engineering, or related areas, with demonstrated overview in the field. Good knowledge of English language is expected. There is no formal submission procedure; candidates are encouraged to informally contact Michal Kozubek. The positions are mainly financed by the Ministry of Education, Youth and Sports within the project National Infrastructure for Biological and Medical Imaging (Czech-BioImaging - LM2015062).