Postdoctoral researcher "Machine learning analysis of neuroimaging data"

Job description

The University of Amsterdam has a vacancy for a postdoctoral researcher. The aim of the project is to develop deep convolutional neural network (CNN) analysis of neuroimaging data to enable neuroimaging biomarker development. Neuroimaging data consist of thousands of features but the training of convolutional networks is typically hampered by limited samples. You will use large existing datasets for the development of CNN analysis and test the resulting models in smaller samples to develop neuroimaging biomarkers that are predictive of treatment outcome in patients with psychiatric disorders. You will closely collaborate with experts in CNN and computer vision in the deep learning group of Prof. Max Welling (UvA) as well as with experts in neuroimaging and psychiatry in the group of Dr. Guido van Wingen (AMC-UvA). Key objectives include the construction of networks that are invariant to differences in MRI data acquisition, accommodate classification on multiple data modalities, test the networks with supervised and unsupervised problems, and develop software for end-users. This project is funded by a Vidi grant from the Netherlands Organisation for Scientific Research (NWO/ZonMW).

Requirements

We are looking for a postdoctoral fellow with a (nearly completed) PhD in computer science, artificial intelligence, bioinformatics, mathematics, statistics, engineering, or related discipline. You have a strong background in mathematics, statistics, and (GPU) programming (e.g., Linux, C++, Python, Cuda, Matlab), and have experience with machine learning, pattern analysis, and/or medical image analysis. You have excellent communicative skills in written and spoken English (Dutch is a plus but not required) and are well able to work independently as well as in a team. You have an interest in neuroscience and developing biomedical applications, and as postdoctoral researcher will assist in the supervision of junior researchers.

What we offer

We offer a challenging multidisciplinary research project for the duration of 2 years with a possible extension. The starting date is preferably around January 2016. Compensation is according to the collective agreement (CAO-UMC), and you will be employed by AMC Medical Research BV.

Contact information

For more information regarding the position, you can contact dr. Guido van Wingen (G.A.vanWingen@amc.uva.nl) and Prof. Max Welling (M.Welling@uva.nl).

To apply, please provide a motivation letter explaining why you are the right candidate, curriculum vitae, transcript of records including grades, a list of projects you have worked on (with brief descriptions of your contributions, max. 2 pages), and the names and contact information of two academic references.

You can only apply online until November 27 via www.amc.nl/vacatures.