

## JOB OFFER

Position in the project:	Research Junior
Scientific discipline:	Computer science
Job type (employment contract/stipend):	employment contract
Number of job offers:	2
Remuneration:	<p>≈ 8 000 PLN monthly (gross income)</p> <p>doctoral degree obtained up to 5 years from the date of employment in project, full-time (gross income together with the employer's costs for full-time equals 10 000 PLN)</p> <p><b>or</b></p> <p>doctoral degree obtained between 6-9 years from the date of employment in project, 2/3 fraction of full engagement in the project (gross income together with the employer's costs for full-time equals 15 000 PLN)</p>
Position starts on:	1st February 2020
Maximum period of contract/stipend agreement:	3 years
Institution:	Jagiellonian University, Cracow
Project leader:	Jacek Tabor
Project title:	<p><b>Bio-inspired artificial neural networks</b></p> <p><b><i>Project is carried out within the TEAM-NET programme of the Foundation for Polish Science</i></b></p>
Project description:	<p>Artificial neural network model was created basing on analogies to biological counterparts, such as a simplified model of the neuron or a system of retinal neurons. Due to the increasing complexity of tasks and problems with the development of effective methods for learning deep neural networks, solutions based on algebraic structures dominate. Today, advanced approaches in machine learning such as deep learning show a number of undesirable features, such as forgetfulness, susceptibility to adversarial examples, the requirement for a large training set, and slow learning. Most</p>

	<p>of these features do not occur in biological systems, thus it would be beneficial to take an inspiration from them to help training artificial systems. The aim of the project is to analyze high-level behaviors of biological neural systems and to build innovative artificial models by proposing new paradigms of learning and new architectures of computational models.</p> <p>The Jagiellonian University will run six research groups: Cognitive group (leader Tadeusz Marek), Physics-group (leader Maciej A. Nowak), Machine-learning group, Neuro-group, BioDataScience-group, InfoTech-group.</p> <p><b>We seek for a Reaserch Junior of the InfoTech group.</b></p>
Key responsibilities include:	<p>The responsibility of the potential contractor shall be:</p> <ol style="list-style-type: none"> <li>1. theoretical research,</li> <li>2. development of models of artificial neural networks,</li> <li>3. implementation and testing of created solutions.</li> </ol>
Profile of candidates/requirements:	<ol style="list-style-type: none"> <li>1. PhD degree,</li> <li>2. practical experience with solving problems related to artificial problems, neural networks, deep learning (in academic or research context),</li> <li>3. good command of English (both in writing and speaking),</li> <li>4. experience with machine learning software libraries (TensorFlow, PyTorch, Keras or similar).</li> <li>5. Fluency in Python (C/C++ is a plus)</li> <li>6. publications at leading machine learning conferences (category A/A*, in particular ICLR, Neurips, ICML) is a plus</li> </ol>
Required documents:	<ol style="list-style-type: none"> <li>1. filled in recruitment form (basic formal information);</li> <li>2. curriculum vitae;</li> <li>3. list of publications and ongoing research projects;</li> <li>4. statement on the knowledge and acceptance of rules regarding intellectual property and legal protection of intellectual property;</li> <li>5. documents confirming the scientific degrees (copies of PhD);</li> <li>6. statement of knowledge and acceptance of intellectual property rules and legal protection.</li> <li>7. information about processing of personal data.</li> </ol>
We offer:	<ol style="list-style-type: none"> <li>1. full time employment from 1 February 2020 till 31 December 2022 (36 months), subject to periodical evaluations;</li> <li>2. cooperation with the best machine learning groups in Poland;</li> <li>3. competitive earnings (about PLN 8,000 gross);</li> <li>4. raising qualifications;</li> <li>5. access to computing infrastructure.</li> </ol>
Please submit the documents to:	<a href="mailto:bionn@matinf.uj.edu.pl">bionn@matinf.uj.edu.pl</a>
Application deadline:	12th January 2020 (12 PM CEST)
General rules of the requirement process	1. Candidates may run simultaneously for all positions offered by the project. This must be declared in the application form.

	<p>2. The decision will be taken by the Recruitment Committee (RC) established at the Faculty of Mathematics and Computer Science of the Jagiellonian University at to 27th January 2020.</p> <p>3. An interview is expected. RC reserves the right to invite for the interview only pre-selected candidates. We expect that the interview will be held in 20-24 January 2020. The confirmation will be sent to the prospect candidates in 13-17 of January 2020.</p> <p>4. RC's decision is to appear after 27th of January. The final decision must be approved by Foundation for Polish Science.</p> <p>5. RC reserves the right to close the competition without selecting the candidate.</p> <p>6. In the case of the resignation of a candidate recommended for the position of a Research Junior, or failure to receive the Foundation for Polish Science's approval, RC will be evaluate the candidates, or may ask to publish a new call for the position.</p> <p>7. The results of the recruitment procedure may be appealed by the candidates within the period of one week after obtaining information about the decision RC.</p>
For more details about the position please visit	<a href="http://bionn.matinf.uj.edu.pl">bionn.matinf.uj.edu.pl</a>
Euraxess job/stipend offer (in case of PhD and postdoc positions):	<a href="#">Research Junior</a> (EURAXESS Job Offer id: 471664)

Due to the entry into force of Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016, we also require that by applying, a candidate expresses his/her consent to the processing of his/her personal data needed for the recruitment process by the Jagiellonian University.