

## JOB OFFER

Position in the project:	<b>Software engineer: Focus on vaccine development (technical staff member)</b>
Scientific discipline:	<b>Mass Spectrometry Cancer Vaccine Discovery Science</b>
Job type	Employment
Number of job offers:	1
Remuneration /month	upon negotiations, employment contract up to max. 12 000 PLN/ month (gross/ before tax & deductions) - yearly additional remuneration bonus (according to rules for public units, i.e. after working for UG 6 months in a given calendar year); - yearly additional incentive payment
Position starts on:	As soon as possible, upon negotiations
Maximum period of contract:	Till 30 December 2024 (after successful probation period)
Institution:	International Centre for Cancer Vaccine Science, University of Gdańsk, Poland
Project leaders:	Dr Javier Alfaro / Prof. Natalia Marek-Trzonkowska
Project title:	1. "International Centre for Cancer Vaccine Science" - the project is carried out within the International Research Agenda Programme of the Foundation for Polish Science. 2. "Knowledge At the Tip of Your fingers: Clinical Knowledge for Humanity (KATY)" within Horizon 2020.
Project description:	The software engineer will have the exciting opportunity to integrate within the informatics teams for two major EU projects: "International Centre for Cancer Vaccine Science" - the project is carried out within the International Research Agenda Programme of the Foundation for Polish Science. "Knowledge At the Tip of Your fingers: Clinical Knowledge for Humanity (KATY)" within Horizon 2020. Through both these projects and newly awarded funding,



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the Engineer will help to harmonize workflows towards the development of a general framework for universal vaccine design.

We are filling out our data-science team to solve the many computationally complex problems we encounter in the search for the cure for cancer. We work towards the development of new immunotherapies that leverage the patients own immune-system to eradicate the disease. Our work and findings help to improve the treatment and care for cancer patients around the world.

The ICCVS participates in a second EU project named “Knowledge At the Tip of Your fingers: Clinical Knowledge for Humanity (KATY)” which aims to use explainable artificial intelligence to develop new treatments for Renal Cancer. The candidate will have the unique opportunity to interact with this large international consortium to develop and organize collaborative AI-engineering projects.

Finally, the ICCVS has newly awarded funding to develop a generalized framework for vaccine design to be applied in the context of cancer and emerging diseases like SARS-Cov-2.

The data we deal with is truly huge: individual datasets can be hundreds of terabytes, and can include numerical, textual and imaging data. The team we are building is incredibly diverse, with biologists, statisticians, software engineers, bioinformaticians, mathematicians and data scientists. Together, we are all working as a team toward the common goal of developing new therapies for cancer patients. Use your technical skills to tackle one of the hardest problems of our time as you continue to grow into data-science.

We are searching for a software engineer passionate about applying their knowledge of software development and design to improve scientific research. We are equipped with state of the art facilities on which to develop your data-engineering and high performance computing skillset. The project has access to Cyfronet Prometheus (~55, 000 cores) and CI TASK Tryton (~38, 000 cores) clusters, which are consistently represented among the top 500 super computers in the world. As the work is international in nature, we are constantly integrating with sister-groups around the world. There will be ample training opportunities for developers who join the team and we offer an internationally competitive salary competitive with your experience.



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<p>Key responsibilities include:</p>	<p>The software engineer position at ICCVS involves the optimization of bioinformatics software prior to public distribution and the maintenance and expansion of software systems used by members of the team including the development environment for Python and R used by the team. You will play a critical role in the software development of bioinformatics tools and algorithms, which will dramatically increase the scope of our research. The software engineer also works with lab members to help write better, more maintainable code, and provides guidance in using lab resources such as the computing cluster and version control. We depend on the software engineer to continue to develop and expand their skills in data engineering and software development by attending conferences to update and consult us on the state of the art. Finally, we will encourage you to participate in polish-led software development efforts and participate in the open source community and industry partnerships.</p> <p><b>Other responsibilities may include:</b></p> <ul style="list-style-type: none"> <li>• Develop quality software and web applications</li> <li>• Analyze and maintain existing software applications</li> <li>• Design highly scalable, testable code</li> <li>• Development of computational pipelines for analyzing big data</li> <li>• Building and maintaining core infrastructure (e.g. build systems, automated code-quality assessment)</li> <li>• Database schema design and management</li> <li>• Web design and development</li> <li>• Systems administration</li> <li>• Applied machine learning</li> <li>• Cloud-based workflow development and deployment</li> <li>• Open-source software development and maintenance</li> <li>• Mentorship of junior software engineers and co-op students</li> <li>• Training of biologists and statisticians in software engineering fundamentals</li> </ul>
<p>Profile of candidates/requirements:</p>	<p><b>Preferred Qualifications:</b></p> <ul style="list-style-type: none"> <li>• Bachelor's degree or further training in Software Engineering, Computer Science or Computer/Electrical Engineering</li> <li>• Development experience with programming languages</li> <li>• Experience with version control systems (SVN, Git, Mercurial, etc)</li> <li>• SQL database or relational database skills</li> </ul>



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	<ul style="list-style-type: none"> <li>• Excellent implementation skills (high-level languages) a must</li> <li>• Experience with at least two of the following: R, Python, C, C++, Java</li> <li>• Knowledge of UNIX/Linux environments is a firm requirement</li> </ul> <p><b>Beneficial skills include:</b></p> <ul style="list-style-type: none"> <li>• systems software</li> <li>• algorithm design and analysis</li> <li>• performance optimization</li> <li>• SLURM or other job scheduling systems</li> <li>• experience with Amazon Web Services, Google Cloud Engine or other clouds</li> <li>• distributed programming</li> <li>• prior exposure to molecular biology, biochemistry or bioinformatics</li> <li>• Relational database management systems skills (e.g. PostgreSQL)</li> </ul>
Required documents:	<ol style="list-style-type: none"> <li>1. CV</li> <li>2. Motivation letter</li> </ol>
We offer:	<ul style="list-style-type: none"> <li>• The ICCVS is housed in state-of-the-art facilities at the UG with facilities for mass spectrometry, virology, protein biochemistry, vaccine technology and computational biology.</li> <li>• Employees will have the opportunity to develop skills in machine learning and high performance computing. The center has access to Cyfronet Prometheus (~55, 000 cores) and CI TASK Tryton (~38, 000 cores) clusters, which are consistently represented among the top 500 super computers in the world.</li> <li>• Our software engineers, statisticians and computer-scientists are encouraged to further develop their skills in data-science through the attendance of workshops, conferences etc.</li> <li>• The ICCVS provides an exceptional opportunity for motivated data scientists to work in an international multidisciplinary training environment to tackle major challenges at the interface between basic cancer discovery science and translational medicine.</li> </ul>
Please submit the following documents to:	<a href="mailto:iccvs@ug.edu.pl">iccvs@ug.edu.pl</a>
Application deadline:	28.02.2022



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For more details  
about the position  
please visit  
(website/webpage  
address):

[www.iccv.ug.edu.pl](http://www.iccv.ug.edu.pl)

for any inquiries, please contact: [javier.alfaro@ug.edu.pl](mailto:javier.alfaro@ug.edu.pl)

Euraxess job/stipend  
offer:

n/a

#### Consenting clause

Please include in your offer: „I consent to the processing of my personal data by the University of Gdańsk contained in the application documents for the needs necessary to carry out the recruitment procedure, including the competition for the position of post-doctoral researcher. in University of Gdańsk, International Centre for Cancer Vaccine Science, in accordance with the General Data Protection Regulation of 27 April 2016. In addition, I declare that I have been informed of the possibility of withdrawing consent at any time and that its withdrawal does not affect the legality of the processing which was carried out on the basis of consent before its withdrawal.”

#### Information clause

In accordance with the General Data Protection Regulation of 27 April 2016 hereinafter referred to as GDPR, we inform that:

1. The Administrator of your personal data is the University of Gdansk with headquarters in (80-309) Gdańsk, ul. Jana Bażyńskiego 8.
2. The administrator of personal data has appointed the Data Protection Officer, which can be contacted on the phone number (58) 523 24 59 or e-mail address: [poin@ug.edu.pl](mailto:poin@ug.edu.pl).
3. Your personal data will be processed in order to carry out the recruitment process for the position technical employee in University of Gdańsk, International Centre for Cancer Vaccine Science,
4. The legal basis for the processing of your personal data for the purposes of recruitment is art. 6 par. 1 lit. c GDPR – processing is necessary to fulfil the legal obligation incumbent on the administrator resulting in particular from art.118 a of the Law on Higher Education and art. 221 of the Act - Labour Code. A premise that legalizes the processing of personal data voluntarily provided by the candidate, going beyond the scope of data indicated in art. 221 of the Act - Labour Code will be art. 6 par. 1 lit. a GDPR - consent of the data subject.
5. Providing your personal data by yourself, after making a decision about joining the recruitment process is obligatory in the scope specified in art. 22<sup>1</sup> of the Labour Code and the Law on Higher Education and conditions the possibility of applying for employment and possible further employment. In the case of providing personal data going beyond the above law - providing your personal data by yourself is voluntary but it determines the possibility of participation in the recruitment process
6. Your personal data will be processed on behalf of the data controller by authorized employees only for the purposes referred to in par. 3.
7. Your personal data will be kept for the period necessary to achieve the objectives set out in paragraph. 3. In the case of a negative result of your recruitment, your data will be deleted immediately after the recruitment is completed, unless the law requires the archiving requirement within the specified scope - for the time specified in these provisions.



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8. Your personal data will not be disclosed to third parties, except as provided for by law. In the case of submission of application documents by electronic means, the recipient of your data may be an entity acting on behalf of the administrator, ie an entity that is the operator of the postal service.
  9. Under the rules laid down in the provisions of the GDPR, you are entitled to:
    - a. the right to access the personal data,
    - b. the right to rectify them when they are inconsistent with the real state,
    - c. the right to remove them, limit processing and transfer data - in cases provided for by law,
    - d. the right to object to data processing,
    - e. the right to lodge a complaint to the supervisory body - the President of the Office for Personal Data Protection, when you think that the processing of your personal data violates the provisions on the protection of personal data.



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