

JOB OFFER

Position in the project:	Student (enrolled in BSc or MSc studies)
Scientific discipline:	Computer science or a related discipline
Job type (employment contract/stipend):	Stipend
Number of job offers:	4
Remuneration/stipend amount/month ("X0 000 PLN of full remuneration cost, i.e. expected net salary at X 000 PLN"):	Stipend 1500 PLN (= 350 EUR) per month (netto)
Position starts on:	As soon as possible
Maximum period of contract/stipend agreement:	Max. 1 year
Institution:	Institute of Computing Science, Poznan University of Technology
Project leader:	dr hab. Inż. Paweł T. Wojciechowski, prof. nadzw.
Project title:	<i>"Scalable in-memory data store systems based on mixed-consistency data types and replication algorithms for efficient and anomaly-free data management in the emerging NVM-based computer architectures."</i>
Project description:	<p>The amount of data stored in data centers and processed by cloud services is growing constantly and rapidly. Therefore a new generation of data store systems is required, which will offer high efficiency, availability, and robustness for a large number of concurrent users. The main goal of the project is to propose cutting-edge solutions that can be used to build robust data store systems which scale, i.e., the system throughput grows with an increasing number of nodes or processors. The solutions include novel replication methods and algorithms with support for transactions (taking advantage of multi-core CPUs), replicated data structures that support both strong and eventual consistency, and novel recovery algorithms, which envisage the use of persistent (non-volatile) memory in the future computer systems. The results of our work will be evaluated formally and experimentally.</p> <p><i>The Project is carried out within the TEAM programme of the Foundation for Polish Science co-financed by the European Union under the European Regional Development Fund.</i></p>
Key responsibilities include:	<p>Assignments of research tasks to students will be done based on the project needs and student's experience and interests. We expect participation in at least one of the following project tasks:</p> <ol style="list-style-type: none"> 1. Design, implementation and evaluation of novel NVM-enabled methods and algorithms for distributed synchronization and/or service replication 2. Participation in the development of new conflict-free replicated data types/structures (Acute Cloud Types)

3. Design, implementation and evaluation of novel NVM-enabled recovery methods and algorithms
4. Optimization and evaluation of selected methods and algorithms

Qualifications:

1. A status of a person who is enrolled in the first- or second-cycle studies in computer science or a related discipline (toward BSc or MSc degrees)

Knowledge & Experience:

1. Good programming skills in any high-level programming language (preferred C/C++)
2. Expertise in using any operating system from the Unix-family

Personal skills:

1. Ability to independently pursue her/his work
2. Ability to collaborate with others
3. Willingness to learn new things

Profile of candidates/requirements:

1. CV including your education history, achievements, relevant experience, and knowledge (max. 1 page)
2. Application letter with a brief description of why you want to join the project (max. ½ page long)
3. A scan of a signed statement: "*I hereby authorize Poznan University of Technology, Pl. M. Skłodowskiej-Curie 5, 60-965 Poznań, Poland, to process my personal data for the purposes of job recruitment. Furthermore, I declare that I am aware of the voluntary submission of data and I am informed about the right to access the data and the right to correct it, pursuant to the Article. 6 par. 1 lit. a), and art. 7 par. 1 of Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 on the protection of individuals with regard to the processing of personal data and on the free movement of such data, and repealing Directive 95/46 / EC (Regulation GDPR - RODO in Poland).*"

Required documents:

We offer:

1. Employment in the project for the period of up to 1 year
2. Opportunity to learn new skills

	3. A workplace with access to state-of-the-art computing facilities in the Institute and at the Poznan Supercomputing and Networking Center (90th in the world's TOP500 in June 2016)
Please submit the following documents to:	mailto:Pawel.T.Wojciechowski@cs.put.edu.pl In case your application will be accepted for further consideration, you will be invited for an interview.
Application deadline:	We accept applications until positions are filled.
For more details about the position please visit (website/webpage address):	http://www.cs.put.poznan.pl/persistentdatastore
Euraxess job/stipend offer (in case of PhD and postdoc positions):	

Due to the entry into force of Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016, the institution that carries out the recruitment process, i.e. Poznan University of Technology, Pl. M. Skłodowskiej-Curie 5, 60-965 Poznań, Poland, requires the consent to the processing of candidate's personal data for the purposes of carrying out the recruitment procedure, choosing the employee, and, if applicable, entering into an employment contract with Poznan University of Technology. Therefore a job application must include a signed statement mentioned in the list of required documents.