

# **Systems Research Institute Polish Academy of Sciences**

Newelska 6, 01-447 Warszawa, Poland

Phone: 22 38 10 100
Directors: 22 38 10 275
Fax: 22 38 10 105
Empile durakcia@ibsnap.waw.pl

E-mail: dyrekcja@ibspan.waw.pl Web: www.ibspan.waw.pl Tax no.: 525 000 86 08

Call for the position of the Research Assistant/PhD candidate
in the ExplainMe project implemented as a part of the FIRST TEAM action carried out by
the Foundation for Polish Science, financed by
the "European Funds for a Smart Economy" Program (FENG)

#### **Work location**

Warszawa, ul. Newelska 6, 01-447 Warszawa, Department of Stochastic Methods

## Scope of duties

- Participation in the development of the "Explainable Voice Monitoring System" (ExplainMe), which includes modules for data collection and analysis, modeling, classification, dashboards for visualization, as well as a module for construction of explanations and fuzzy linguistic summaries.
- Development of efficient computational intelligence algorithms aimed at predicting changes in affective states based on acoustic data, in collaboration with end-users of the ExplainMe system and leading experts in medicine, psychiatry, and related fields.
- Participation in the development of 3 application scenarios, including documentation covering the description of real and medical datasets and a list of indicators (KPIs) defined for each use case.
- Participation in the development of a testing environment.
- Participation in the implementation of the algorithms developed within the project and the
  execution of tasks to achieve the intended outcomes of the ExplainMe project (see project
  description later in the announcement).
- Preparation of project reports.
- Cooperation with team members and research partners, including psychiatrists and physicians.
- Participation in the analysis and evaluation of the obtained results in comparison with the state
  of the art.
- Participation in the preparation of scientific publications for peer-reviewed journals.
- Participation in national and international conferences and dissemination of project results.

#### Requirements

- Completed studies towards the MSc degree in mathematics, computer science or related field.
- PhD student status when starting work in the project.
- Knowledge in the fields of data analysis.
- Very good command of at least one the following programming languages: R, Python.
- Very good command of English.
- Creativity and attention to detail.
- Ability to work in an international and interdisciplinary team.









- Knowledge /experience related to:
  - o machine learning algorithms
  - fuzzy logic
  - o applied statistics (e.g., predictive modeling and medical data analysis)

will be an asset.

### We expect

- Compliance with high standards of work.
- · Commitment to performing duties.
- Creativity in project tasks accomplishment.
- Active participation in project meetings.
- Active participation in conferences and working on project results reporting, including scientific papers preparation.

#### We offer

- Full-time contract for the probationary period of 3 months with a possibility of extension to subsequent 27 months of regular employment.
- Basic salary amounting to 9 000,00 10 000,00 PLN.
- An opportunity for personal development and work in a dynamic research team on modern research topics.

## Documents to be submitted by a candidate

- A motivation letter (up to 1 page).
- CV (up to 2 pages) including contact info (phone number, e-mail address).
- MSc degree diploma; alternatively a declaration on the planned date of the defense of such a diploma.
- A short description of the research interests of the candidate (up to 1 page).
- A list of scientific publications and conference presentations (optionally).
- A signed statement with the following content:

"I hereby agree to have my personal data processed by the Systems Research Institute of the Polish Academy of Sciences, Newelska 6, 01-447 Warszawa, Poland, for purposes of the respective recruitment process. The personal data will be processed for the purpose of the current recruitment procedure, on the basis of the consent given (Article 6(1)(a) and 6(1)(c) of Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data, and repealing Directive 95/46/EC (General Data Protection Regulation – GDPR). Besides, I declare having taken knowledge of the 'Information clause for the recruitment process' concerning personal data processing, including information on the purpose and ways of processing the respective personal data, as well as the right to access and modify the data.".









## The deadline and application submission mode

Candidates are requested to submit the application by **September 2, 2025**, electronically to the email address of the project Principal Investigator: <a href="mailto:k.kaczmarek@ibspan.waw.pl">k.kaczmarek@ibspan.waw.pl</a> with a note in the subject line: "Research Assistant/PhD student **ExplainMe**".

If you have any questions, please contact us at: k.kaczmarek@ibspan.waw.pl

## **Project description**

The project "Explainable Artificial Intelligence for Monitoring Acoustic Features extracted from Speech" with the acronym ExplainMe is implemented in the framework of the FIRST TEAM call funded by the European Regional Development Fund from the European Funds for Smart Economy 2021-2027 programme (see the website of the project: https://explainme.ibspan.waw.pl).

The aim of the project is to develop algorithms and tools for the analysis and explanation of complex medical data, in particular in the form of multidimensional time series, constituting a record of patients' speech. The originator and principal investigator of the project is Professor Katarzyna Kaczmarek-Majer, PhD, DSc. Thanks to the funds obtained for the project and based on experience in the field of medical applications of computational intelligence, the project team develops research and solutions aiming to support psychiatrists in diagnostics of affective disorders. Clinical practice and the latest research confirm that the way of speaking can be a signal in the field of mental disorders or phase changes in affective states. However, there is a need for easy-to-use and reliable tools that, through the use of modern technologies and artificial intelligence, can help explain, for example, why an observed time series indicates a change in a patient's condition. The project will be implemented in close cooperation with a business partner, Britenet Med sp. z o.o., and numerous experts from Poland and abroad, including the Czech Republic, Finland, Spain, Germany and Italy.

The recruited candidate will have a unique opportunity to develop explainable artificial intelligence algorithms and their application in medicine in collaboration with industrial partners and scientists from leading research centers in Poland and abroad. The ExplainMe project provides funding for research and enables researchers to participate in leading international scientific conferences.

Please be informed that a committee will be appointed to assess the candidatures submitted, which, after the initial assessment of applications, will invite selected candidates for an interview. Representatives of the IP FENG — Foundation for Polish Science will participate in the interviews, too.

A candidate selected for employment, who does not hold the status of a PhD student, will be required to submit to the Chairman of the Scientific Council of the Systems Research Institute, Polish Academy of Sciences, via the director of the Institute, an application to appoint a supervisor, agreed upon with the project Principal Investigator, as part of the process for awarding him or her the doctoral degree in the extramural procedure.

The employment in the project will be possible after the acceptance of the Scientific Council.









## Information clause for the recruitment process

- 1) the controller of the personal data processed in the course of the recruitment process is the Systems Research Institute of the Polish Academy of Sciences, with its registered office at 6 Newelska Street, 01-447 Warsaw, Poland,
- 2) contact with the data protection officer is possible at the e-mail address iod@ibspan.waw.pl,
- 3) personal data will be processed for the purpose of the current recruitment procedure, on the basis of the consent given (Article 6(1)(a) of Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data, and repealing Directive 95/46/EC (General Data Protection Regulation GDPR),
- 4) the data subject has the right to withdraw consent at any time, without affecting the lawfulness of processing based on consent before its withdrawal,
- 5) data collected in the course of recruitment processes shall be stored for a period not longer than one year,
- 6) the data subject has the right to access their personal data, and to request that they be rectified or erased; if erasure of personal data is requested, this shall be equivocal to resignation from participation in the recruitment process carried out by the Systems Research Institute of the Polish Academy of Sciences in Warsaw.
- 7) the data subject has the right to file a complaint to the President of the Personal Data Protection Office (PUODO) with regard to unlawful processing of personal data; PUODO will be the authority competent to review the complaint, with the proviso that the right to complain applies solely to the processing personal data and not to the course of the recruitment process.







