

# Cognify your Products and Production Systems with Pro<sup>2</sup>Future



Pro<sup>2</sup>Future - Products and Production Systems of the Future - is an industry-related and independent research centre in the field of artificial intelligence (AI) and cognitive / industrial ICT with a focus on cognitive products and production systems. These are supported by the areas of Perception and Aware Systems, Cognitive Robotics and Shop Floors, and Cognitive Decision Making. Further fields of activity of the centre cover mechatronic systems, embedded systems, pervasive computing systems and big data analytics.

To broaden and support our research team and activities in the field of data-driven decision support we are currently offering of a

## Research position for PhD candidates within the topic “Cognitive Decision Support“ Full-time (38,5hours/week), at Pro2Future GmbH in Graz (Campus of Graz, University of Technology)

### Project context

Developing and evaluating AI methods for causality analysis. Together with an internationally renowned industrial partner from the textile industry, we are investigating how ML/DL methods can be used to analyze data from industrial processes, identify the causal structure within these processes and provide methods to help a human decision-maker understand what might have happened if he or she had acted differently in a particular situation in the past (counterfactual-based explanations). In this context, feature selection and extraction methods for obtaining process-describing features as well as ML/DL methods for predicting the processes and causality analysis are to be researched, developed, and applied.

### Job profile

The successful candidate will be engaged in computational data analysis and data-driven projects. To this end, **one or more** of the following skills are required: good knowledge of machine learning, deep learning, and statistical methods for data analysis. Experience in the field of mathematics, as well as software development are also of advantage. The successful candidate seeks an ambitious activity in industry-driven research and is particularly willing to obtain a PhD under supervision of Prof. Dr. Stefanie Lindstaedt and co-supervision of Ass.-Prof. Dr. Roman Kern at TU Graz.

The successful candidate will work within an interdisciplinary project team consisting of experts including the industrial partners, project management and scientific partners. The candidate plays a major role in shaping and executing the projects' research agenda. Project work will also involve collaboration and knowledge exchange with Pro<sup>2</sup>Future partners, several allied international research groups as well as participating in the international research community.

### Your qualifications

- A university-level degree in Computer Science, Information and Computer Engineering, Mathematics, or similar
- Experience and practical proficiency with programming languages and tools (e.g., Python, Java, R, TensorFlow Git, etc.)
- High interest in research and technology
- High motivation, self-initiative, and sense of responsibility, being a team player
- Fluent in English or German
- Flexibility, willingness to learn, openness and commitment



### Our offer

- The opportunity to work in a highly qualified, international, young, and dynamic research team
- Collaboration in innovative, beyond-state-of-the-art research projects, Member of Research-Buddy-System
- Support for your ongoing studies - in content and organisation - possibility for part-time
- Opportunity for personnel development in a learning and respectful environment
- Great emphasis on gender, diversity, and equal opportunities
- Flexible working hours, flat organizational structures, fun at work
- Full-time gross salary per month EUR 3,100.00 EUR or gross salary per year EUR 43,400.00



Pro<sup>2</sup>Future GmbH aims to increase the proportion of women in the research area - we are therefore particularly looking forward to applications from qualified women!



**Katarina Milenkovic, MSc**



*I work in the comprehensive optimization, where we research novel approaches to extract knowledge over the product lifecycle.*

**Matej Vukovic, M.Inf.**



*Our results give an insight into the Key Influencing Parameters for Blast Furnace and Electric Arc Furnace Operations in the Metal Industry.*

**DI Ouijdane Guiza**



*I work on privacy respect and monitoring of human intensive assembly processes and cognitive line balancing support.*



Flexi-Worktime



Free Coffee!



High-end Equipment



Home-Office



Internal Trainings & Study Opportunities



Structured Onboarding



Fresh Fruits



Restaurants & Mensa



Brand New Offices



Employee Events



Public Transport



Central Location

To apply for this position, please send your application (including CV, supporting documents, letter of motivation), via e-mail to: [jobs@pro2future.at](mailto:jobs@pro2future.at). Pro2Future GmbH, z.H. Mag.(FH) Sandra Neuhold-Pauer, Altenberger Straße 69, 4040 Linz, Standort Graz: Infeldgasse 25F, 8010 Graz, Tel.: +43 664 / 8889 2189).