



# Cognitive and Sustainable Products and Production Systems of the Future

Pro<sup>2</sup>Future – Cognitive and Sustainable Products and Production Systems of the Future - is an industry-related COMET K1 research Centre in the field of artificial intelligence (AI) and cognitive / industrial ICT, human-machine-interaction (HMI) and data-driven process optimization with a focus on cognitive and sustainable products and production systems. These are supported by the areas of Perception, Orchestration, and Analytics. Further fields of activity of the Centre cover mechatronic systems, embedded systems, pervasive computing systems, and big data analytics.

For strengthening our team, we are currently offering the position of a

## Ph.D. Researcher (m/w/d) within the topic “AI-driven Analytics”

Full time (38,5 hours/week), at Pro<sup>2</sup>Future GmbH location in Linz

### Project context

In the **Analytics** research area, we investigate computer-aided decision-making by developing advanced analysis and AI methods that support monitoring of production processes, predicting undesirable system states, and enabling preventive, unobtrusive corrective actions. Our research focuses on computational data analysis and visual data science, combining algorithmic approaches with interactive visualizations to transform complex datasets into actionable insights. This approach facilitates data-driven decision-making by revealing patterns, trends, and correlations that are often hidden in large-scale data. To achieve these goals, we employ a variety of computational techniques such as machine learning and deep learning for predictive modeling and anomaly detection, statistical analysis for robust inference, and advanced visualization methods to enhance interpretability and support human-in-the-loop decision-making. Ultimately, our aim is to convert raw data into meaningful knowledge that improves efficiency, reliability, and innovation in production environments.

### Job profile

We are looking for a highly motivated Ph.D. Researcher who will contribute to the full portfolio of application-oriented research projects within the area supervised by the Area Management. Leveraging strong expertise in machine and deep learning, visualization, and programming languages, the candidate will provide effective research contributions to achieve project objectives. Prior experience in industry or industry-related projects ensures the candidate can fully understand, communicate, and manage the requirements set by industrial partners, thereby bridging the gap between research and practical application.

### Your qualifications

- University degree in computer science, computer engineering, mathematics or similar
- Experience and practical knowledge of programming languages and tools (e.g., Python, JavaScript, React, Pandas, TypeScript, Docker)
- Experience and practical knowledge in Machine- and Deep Learning
- Interest in Large Language Models is not a prerequisite, but is appreciated
- Independent and reliable way of working, enjoy working in a team
- Fluent in English and German
- Willingness to travel between the Pro<sup>2</sup>Future GmbH locations
- 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
- Opportunity for a PhD thesis
- 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 3,700.00 EUR



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!

DI Cosmina-Cristina Ratiu



*I work on cognitive engineering project support, developing an approach and tool support for modeling complex and collaborative processes.*

Dr. Matej Vukovic



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

DI Dr. Ouidjane 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 & Menus



Brand New Offices



Employee Events



Public Transport



Central Location



Food Allowance

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). Pro<sup>2</sup>Future GmbH, z.H. Mag. (FH) Sandra Neuhold-Pauer, Altenberger Straße 69, 4040 Linz, Standort Graz: Sandgasse 34, 8010 Graz, Tel.: +43 664 / 8889 2189.