Cognify your Products and Production Systems with Pro²Future

Pro²Future - 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. We are currently offering the position of a

Researcher / PhD Candidate Position (m/w/d)

within the topic "Streaming AI"

Fulltime (38,5 hours/week), at Pro2Future GmbH in Linz (Campus of Johannes Kepler University Linz)

Project context

In contrast to conventional (i) pre-trained, (ii) holistic and (iii) resource-intensive AI, the aim of Streaming AI is to harmonize AI technology and methodology with the reality of digital transformation in industry by introducing (i) streaming machine learning methods, i.e. training models during operation, thus avoiding the need for mass training data, with (ii) on-device machine learning methods for AI federations distributed across different manufacturing plants, machines, processes and devices ("Internet of Thinking Things"). This can avoid ex-ante mass data collection and its management in mass storage and centralized server farms. Streaming AI thus focuses on the fundamental question of distributed/federated perception and machine learning methods that are oriented towards incremental, streaming-based learning.

Job profile

The candidate will work intensively with distributed, federated learning methods towards development of a functional prototype. This requires sound knowledge in the areas of machine learning, deep learning and computer networking. Knowledge of software development beyond scripting is considered a significant and distinct advantage. The candidate is also looking for an ambitious position in application-oriented research, will be part of an interdisciplinary project team consisting of experts including project management and scientific partners. The candidate will play a significant role in the design and implementation of the research content of the project. Research work also includes collaboration and knowledge exchange with Pro²Future partners, with several affiliated national and international research groups beyond the project scope and participation in the international research community. Within the scope of the project the candidate should also be willing to obtain a PhD under supervision of Univ.-Prof. Alois Ferscha at the JKU.

Your qualifications

- University degree in computer science, computer engineering, mathematics or similar
- Experience and practical knowledge of programming languages and tools (e.g. Python, Java, Git, etc.)
- Experience and practical knowledge of machine learning frameworks and tools (e.g. CUDA, Tensorflow, Pytorch etc.)
- Experience/Interest for networking, routing technologies, and protocols
- High affinity for research, interest in shaping future technologies
- Independent and reliable way of working, enjoy working in a team
- 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
- Opportunity for doctoral studies and completion of a PhD
- 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 3,500.00 EUR

Pro2Future GmbH aims to increase the proportion of women in the research area - we are therefore particularly looking forward to applications from qualified women!

Katarina Petrovic, 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.

Dr. Ouijdane Guiza

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

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