

# PostDoc and PhD positions in ERC Starting Grant on Deep Reinforcement Learning

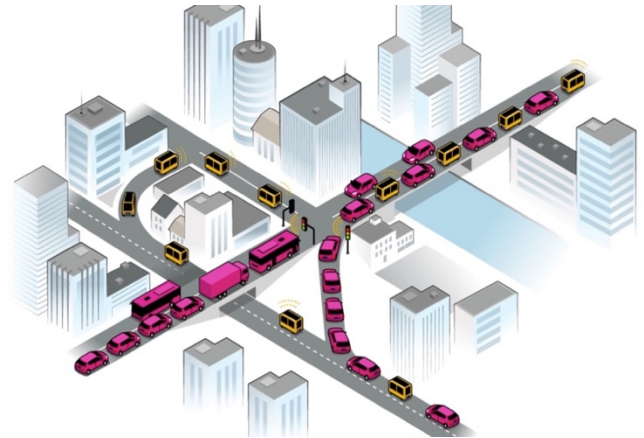
Group of Machine Learning, Jagiellonian University, Kraków, Poland

The [GMUM](#) Group of Machine Learning at Faculty of Mathematics and Computer Science at **Jagiellonian University** in Kraków (est. 1364) invites applications for three PhD positions in the **COeXISTENCE** research funded under prestigious **ERC Starting Grant**.

We offer a competitive salary: -2700€ for PhD and -3600€ PostDoc with ca 1/2 of Western Europe prices.

In [COeXISTENCE](#), we will try to foresee what happens when our cities are shared with autonomous, intelligent robots - competing with us for limited resources.

We are looking to hire PhD and PostDoc with a background in **deep reinforcement learning**, ideally holding a master's degree in computer science with experience in developing state-of-the-art RL models. You will focus on implementing RL frameworks into the agent-based models of urban mobility:



1. You will model the multi-agent virtual environment where collaborative intelligent machines use deep reinforcement learning to outperform humans in their urban mobility.
2. You will develop your own challenging research agenda, contributing towards discovery of new phenomena in complex social systems of the future.
3. You will create a virtual environment of future urban mobility, you will model the travel behaviour of humans and simulate the learning process of intelligent machines.
4. You will be part of an interdisciplinary team and member of the international scientific community, communicating your results at the leading conferences and in the journals.
5. You will develop your IT skills towards the timely and challenging complex social systems.

<p><b>Skills:</b></p> <ul style="list-style-type: none"> <li>• excellent programming skills (python)</li> <li>• hands on experience in ML and RL</li> <li>• solid mathematical background</li> <li>• good command of English (B2+)</li> <li>• curiosity and capability to read professional scientific literature</li> <li>• be a team-player</li> </ul>	<p><b>Application</b> (opening in April and closing as soon as positions are filled):</p> <ul style="list-style-type: none"> <li>• CV with a focus on research and academic experiences</li> <li>• <b>Research plan and motivation</b> (2 pages max) demonstrating <b>your fitness for this position, your research vision for the project and your role</b></li> <li>• Recommendation from researcher (employee of any academic institution). If not available, please contact the PI for the pre-screening and possible recommendation</li> <li>• Abstract of your Master Thesis/PhD (2 pages max)</li> <li>• English language certificate</li> <li>• transcript of records (B.Sc. and M.Sc. studies)</li> </ul> <p>via mail <a href="mailto:coexistence@uj.edu.pl">coexistence@uj.edu.pl</a></p>
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For further inquiries, please contact Dr Rafal Kucharski at [coexistence@uj.edu.pl](mailto:coexistence@uj.edu.pl) or visit the projects' website: <https://rafalkucharskipk.github.io/COeXISTENCE/>