Mohamed Behery

Doctoral Researcher

Address

Aachen, Germany

Contact Info.

mo.behery@gmail.com
Mohamed Behery
github.com/behery
behery.github.io

OpenSource

RobotWebTools

OS Preference

GNU/Linux ★★★★★
Windows ★★★★☆

Languages

Arabic ★★★★★
English ★★★★★
German ★★★☆☆

Research Interests of Focus

Robotics
Artificial Intelligence
Knowledge Representation and Reasoning

Hobbies

Scuba Diving
(PADI Advanced OW)
Freediving
(SSI Level II)
Road Cycling

Education

2018 present — **Ph.D.** Computer Science — RWTH Aachen University
Artificial Intelligence and Applied Robotics

2016 — **M.Sc.** Software Systems Egineering — RWTH Aachen University
Grade: 1.7, Thesis grade: 1.1

2011 — **B.Sc.** Computer Science and Engineering — German University in Cairo
Received a five year scholarship
Grade: 1.5, Thesis grade: 1.0

Experience

06.2018 present — **Doctoral Researcher** — RWTH Aachen University, Aachen, Germany
- Researcher at the Knowledge-Based Systems Group (KBSG)
- Teaching courses, seminars, and labs in addition to thesis supervision
- Workstream deputy lead in the excellence cluster: the Internet of Production (IoP) since 01.2022.
- Coordinator of AI expert group in the IoP since 01.2022
- Member of the Confederation of Laboratories for Artificial Intelligence Research in Europe (CLAIRE)

03.2017 05.2018 — **Robot Software Engineer** — Magazino GmbH, Munich, Germany
Working as a part of the development team using Python, django, ROS, Vue.js as well as several other tools and frameworks to build tools for robot management.

07.2015 09.2016 — **M.Sc. Thesis Student** — German Aerospace Center, Weßling, Germany
Shared autonomy teleoperation of assistive robotic arms for people with tetraplegia using Python, and OpenRave

05.2014 05.2015 — **Student Software Developer** — Ericsson Eurolab, Herzogenrath, Germany
Worked on internal tools for network monitoring using Perl and CakePHP

02.2013 07.2013 — **Teaching Assistant** — German University in Cairo, Cairo, Egypt
Introduction to computer programming
Data structures and algorithms

03.2010 08.2010 — **B.Sc. Thesis Student & Intern** — DHBW Mannheim, Mannheim, Germany
- A testbed for Public Key Infrastructure (PKI)
- Prototyping and UI design for testbed application using Java (Swing) and different UI prototyping tools

Scholarships and Awards

09.2022 — **IoP Young Researcher Award 2022**
Received second place for work on the next generation HRC for the IoP

08.2022 — **International Summer School on AI and Games**
Received scholarship for attending the summer school in Chania, Greece

Publications

Mohamed Behery, Philipp Brauner, Hans Aoyang Zhou, Merih Seran Uysal, et al. “Actionable AI for the Future of Production”. English. In: *Internet of Production Fundamentals, Applications and Proceedings*. In Press. Springer, 2022

Mohamed Behery and Gerhard Lakemeyer. “Motion Descriptors for Intention Recognition in Robot Teleoperation Tasks”. In: *Workshop on Prediction and Anticipation Reasoning in Human Robot Interaction at the International Conference on Robotics and Automation (ICRA)*. Philadelphia, 2022

Ralph Baier, Hannah Dammers, Alexander Mertens, **Mohamed Behery**, et al. “A Framework for the Classification of Human-Robot Interactions within the Internet of Production”. en. In: vol. 2. Lecture Notes in Computer Science. Cham: Springer, 2022

Mohamed Behery, Minh Trinh, and Gerhard Lakemeyer. “Human Action Nodes for Behavior Trees”. In: *Proceedings of the Workshop Robotics for People (R4P): Perspectives on Interaction, Learning and Safety at The Robotics: Science and Systems (RSS) Conference*. 2021, pp. 13–14

Vladimir Samsonov, **Mohamed Behery**, and Gerhard Lakemeyer. “Reinforcement Learning for Short-Term Production Scheduling with Sequence-Dependent Setup Waste”. English. In: *ERCIM News* 122 (July 2020), pp. 38–39. URL: https://ercim-news.ercim.eu/

Mohamed Behery, Matteo Tschesche, Fridtjof Rudolph, Gerhard Hirt, et al. “Action Discretization for Robot Arm Teleoperation in Open-Die Forging”. In: *Proceedings of the SMC 2020 conference*. 2020

Aymen Gannouni, Vladimir Samsonov, **Mohamed Behery**, Tobias Meisen, et al. “Neural Combinatorial Optimization for Production Scheduling with Sequence-Dependent Setup Waste”. In: *proceedings of the SMC 2020 conference*. 2020

Mohamed Behery. *A Knowledge-Based Activity Representation for Shared Autonomy Teleoperation of Robotic Arms*. Tech. rep. RWTH Aachen, Aug. 2016. URL: https://elib.dlr.de/105891/