





Curriculum Vitae – Marius Bock

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Academic Experience

02/2021 - curr.	PhD in Computer Science <i>Supervisors:</i> Prof. Dr. Michael Moeller & Prof. Dr. Kristof Van Laerhoven <i>Title:</i> On the complementarity of video and inertial data for Human Activity Recognition	University of Siegen, GER
11/2024 – 3/2025	- Visiting PhD Student in Computer Science <i>Supervisor:</i> Prof. Dr. Cecilia Mascolo	University of Cambridge, GB
09/2018 - 11/2020	M.Sc. in Data Science <i>Final Grade:</i> (1.4 / 1.0) with honors <i>Supervisor:</i> Prof. Dr. Margret Keuper <i>Title:</i> Multiple Object Tracking by Link Prediction using Graph Convolution Networks	University of Mannheim, GER
10/2013 - 09/2017	B.Sc. in Information Systems <i>Final Grade:</i> (1.5/ 1.0) with distinction (top 5%)	University of Cologne, GER
06/2017 - 09/2017	- Student Researcher Funded under DAAD RISE Worldwide <i>Supervisors:</i> Prof. Dr. Jakub Szefer & Prof. Dr. Ali Sunyaev	Yale University, USA
09/2015 - 12/2015	- Exchange semester <i>Final Grade:</i> (4.0/ 4.0)	University of Seoul, KOR

Selected Publications*

* All first author publications and peer-reviewed.

2024	WEAR: An Outdoor Sports Dataset for Wearable and Egocentric Activity Recognition Marius Bock , Hilde Kuehne, Kristof Van Laerhoven, Michael Moeller. Proceedings of the ACM on Interactive, Mobile, Wearable and Ubiquitous Technologies, 8(4), 175.
2024	Temporal Action Localization for Inertial-based Human Activity Recognition Marius Bock , Michael Moeller, Kristof Van Laerhoven. Proceedings of the ACM on Interactive, Mobile, Wearable and Ubiquitous Technologies, 8(4), 174.
2024	Weak-Annotation of HAR Datasets using Vision Foundation Models Marius Bock , Kristof Van Laerhoven, Michael Moeller. Proceedings of the ACM International Symposium on Wearable Computers
2021 [best paper award]	Improving Deep Learning with Shallow LSTMs Marius Bock , Alexander Hoelzemann, Michael Moeller, Kristof Van Laerhoven. Proceedings of the ACM International Symposium on Wearable Computers

Other Publications*

* Authors are ordered by their contribution. **Authors contributed equally

2025	Label Leakage in Federated Inertial-based Human Activity Recognition Marius Bock** , Maximilian Hopp**, Kristof Van Laerhoven, Michael Moeller Preprint. CoRR abs/2505.20924.
2025	DeepConvContext: A Multi-Scale Approach to Timeseries Classification in Human Activity Recognition. Marius Bock , Michael Moeller, Kristof Van Laerhoven Preprint. CoRR abs/2505.20894.
2024	Basketball Shooting Performance Analysis Using Multi-Modal Wearable and Mobile Sensing in Semi-Naturalistic Settings Sixuan Wu, Alexander Hoelzemann, Marius Bock , Kristof Van Laerhoven, Thomas Ploetz, Alexander T. Adams Proceedings of the IEEE 20th International Conference on Body Sensor Networks
2023	A Data-Driven Study on the Hawthorne Effect in Sensor-Based Human Activity Recognition Alexander Hoelzemann**, Marius Bock** , Ericka Andrea Valladares Bastias, Salma El Ouazzani Touhami, Kenza Nassiri, Kristof Van Laerhoven Adjunct Proceedings of the ACM International Joint Conference on Pervasive and Ubiquitous Computing & the ACM International Symposium on Wearable Computing
2023	Hang-Time HAR: A Benchmark Dataset for Basketball Activity Recognition using Wrist-worn Inertial Sensors Alexander Hoelzemann, Julia Romero, Marius Bock , Kristof Van Laerhoven, Qin Lv. Sensors, 23(13), 5879.
2022	Investigating (Re)current State-of-the-Art in Human Activity Recognition Datasets Marius Bock , Alexander Hoelzemann, Michael Moeller, Kristof Van Laerhoven. Frontiers in Computer Science, 4, 924954.
2022	A Public Repository to Improve Replicability and Collaboration in Deep Learning for HAR Lloyd Pellatt**, Marius Bock** , Daniel Roggen, Kristof Van Laerhoven. IEEE Proceedings of International Conference on Pervasive Computing and Communications Workshops and other Affiliated Events.
2021	Tutorial on Deep Learning for Human Activity Recognition Marius Bock , Alexander Hoelzemann, Michael Moeller, Kristof Van Laerhoven. Full day tutorial at ACM International Joint Conference on Pervasive and Ubiquitous Computing and ACM International Symposium on Wearable Computers.

Comittees

2023	Organizing Committee Learning 2 Sense (L2S) Workshop; Conference on Neural Information Processing Systems (NeurIPS), San Diego, USA
2024 – curr.	Technical Program Committee ACM International Symposium on Wearable Computers
2025 – curr.	Technical Program Committee UbiSense: Emerging Techniques in Ubiquitous Sensing and Interaction
2024 – curr.	Organizing Committee International Workshop on Human Activity Sensing Corpus and Applications (HASCA); Organizer of WEAR Dataset Challenge @HASCA
2023	Student Volunteer Chair ACM International Joint Conference on Pervasive and Ubiquitous Computing and ACM International Symposium on Wearable Computers, Cancun, Mexico

Scholarships & Awards

2021	ISWC Best Paper Award for paper "Improving Deep Learning for HAR with Shallow LSTMs" at ACM International Joint Conference on Pervasive and Ubiquitous Computing and ACM International Symposium on Wearable Computers 2021
2021 – 2024	House of Young Talents - Young Academy 3-year funded PhD scholarship, awarded to by the House of Young Talents at University of Siegen
2025	1st Prize ZESS PhD Research-Forum Lightning Talks awarded for lightning talk given at the annual ZESS PhD Research-Forum in Siegen
2021	ZESS Stipend Award 6-month PhD scholarship, awarded to by the Center for Sensor Systems (ZESS) at University of Siegen
2020	W&W Prize for Outstanding Master Thesis awarded to by the DWS group at the University of Mannheim
2017	DAAD RISE Worldwide 3-month funded research internship at foreign university
2015	Dean's List Award awarded to top 5% of students at the WiSo faculty at the University of Cologne

Invited Talks

2025	On the Complementarity of Video and Inertial Data for Human Activity Recognition At Chair of Prof. Juergen Gall (University of Bonn)
2025	On the Complementarity of Video and Inertial Data for Human Activity Recognition At Google Inc., London
2023	Temporal Action Localization for Inertial-based Human Activity Recognition At Chair of Prof. Michael Beigl (Karlsruhe Institute of Technology)
2023	WEAR: An Outdoor Sports Dataset for Wearable and Egocentric Activity Recognition At Chairs of Prof. Cecilia Mascolo and Prof. Carola Schönlieb (University of Cambridge)

Teaching & supervised theses (selection)

Course [WS 2022]	Deep Learning Teaching Assistant, Lecture for computer science and mechanical engineering master students (50 participants)
Master Thesis [WS 2024]	Differential Privacy for Human Activity Recognition Maximilian Hopp
Master Thesis [SS 2024]	AI-based Unsupervised Defect Recognition for Image Data from Automotive Series Manufacturing Hruday Kumar Kolla (co-supervised by Robert Bosch GmbH, GER)
Master Thesis [WS 2022]	Optimizing Human Activity Data Collection through Machine-Learned Activity-Wise Skips for Minimum Prediction Performance Loss Sanjeev Kumar

Master Thesis
[WS 2022]

Video Hand Detection

Lara Verena Breuer (co-supervised by Virtual Retail GmbH, GER)

Seminar
[since SS 2022]

Recent Advances in Machine Learning

Organizer, Seminar for computer science and mechanical engineering master students (15 participants)

Seminar
[SS 2021 - WS 2024]

Seminar in Data Science

Organizer, Seminar for computer science and mechanical engineering bachelor and master students (15 participants)

Professional experience (selection)

01/2018 - 06/2018

Internship in Cyber Security Services

PwC GmbH, GER

Supervisors: Joerg Asma & Adil Mansoor

04/2017 - 12/2017

Working student in Data Science

SAP SE, GER

Supervisor: Glenn Neuber

08/2016 - 02/2017

Internship in Business Analysis/ Development

SAP Australia Pty. Ltd., AUS

Supervisor: Glenn Neuber

University of Siegen, Siegen, June 16, 2025