Lea Müller

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Education

Doctor of Philosophy in Computer Science **2019 – 2024**
Max Planck Institute for Intelligent Systems; Summa Cum; Advisor: Michael Black *Tübingen, Germany*
Received the MPI-IS Outstanding Female Doctoral Student Prize Honorable Mention

Master of Science in Computational and Data Science **2016 – 2018**
University of Jena; GPA 4.0; Advisor: Joachim Denzler *Jena, Germany*
Received the Exam Award of the Dean

Bachelor of Science in Mathematics (Minor: Psychology) **2011 – 2015**
University of Heidelberg; Advisor: Rainer Dahlhaus *Heidelberg, Germany*

Employment

Berkeley AI Research (BAIR) **2024 – present**
Postdoctoral Researcher; Advisor: Angjoo Kanazawa and Jitendra Malik *Berkeley, CA, USA*

Berkeley AI Research (BAIR) **06/2022 – 12/2022**
Visiting Researcher; Advisor: Angjoo Kanazawa *Berkeley, CA, USA*

Computer Vision Group, University of Jena **10/2017 – 02/2018**
Research Assistant; Advisor: Joachim Denzler *Jena, Germany*

SAP **05/2016 – 08/2016**
Student Assistant; Big Data Products *Walldorf, Germany*

Robert Bosch Tool Corporation **04/2015 – 02/2016**
Intern; Supply Chain Management *Mt Prospect, IL, USA*

Robert Bosch GmbH **09/2014 – 03/2015**
Intern, App & Software Product Management *Leinfelden, Germany*

Translational Psychiatric Therapy Research **12/2012 – 09/2014**
Research Assistant; MRI Data collection and analysis *Heidelberg, Germany*

Awards and Scholarships

MPI-IS Outstanding Female Doctoral Student Prize Honorable Mention **2023**

Best Pitch and Best Business Model Award, Cyber Valley Start-up Incubation Program **2022**

CVPR Best Paper Nominee for *Accurate 3D Body Shape Regression Using* **2022**

Metric and Semantic Attributes

CVPR Best Paper Nominee for *On Self-Contact and Human Pose* **2021**

Exam Award of the Dean, Jena University, Faculty of Mathematics and Computer Science **2019**

Bertelsmann IT Scholarship **2018 – 2019**

E-fellows Scholarship **2018**

Activities

Workshop organizer for the S4 Soft Skill Workshop Series of IMPRS-IS, 2021 - 2022

Student representative at the International Max Planck Research School for Intelligent Systems, 10/2019 - 02/2021

Student mentor at Make Your School – Your Ideas Workshop, 2019

Hack4Health, 2nd place, Data Science Hackathon organized by the Robert Koch Institute, 2018

Talks

Generative Methods for Human Social Interaction, ECCV, Generative Methods for Human Social Interaction Workshop, 2024

Interpersonal Touch and Human Mesh Reconstruction , ECCV, Social AI Workshop, 2024

Self- and Interpersonal Contact in 3D Human Mesh Reconstruction, Meta, 2024

Self- and Interpersonal Contact in 3D Human Mesh Reconstruction, 46th Pattern Recognition and Computer Vision Colloquium, Prague University, 2023

Accurate 3d body shape regression using metric and semantic attributes, oral presentation at CVPR 2022

On Self-Contact and Human Pose, ETH Zürich, Computer Vision and Learning Group, 2021

On Self-Contact and Human Pose, oral presentation at CVPR 2021

Causal inference in nonverbal dyadic communication, Friedrich Schiller University Jena, at the Graduation Ceremony of the Faculty of Mathematics and Computer Science, 2019

Patent Application

L. Müller, M. Black, C.-H. P. Huang, D. Tzionas, V. Choutas, “Accurate body shape estimation”, provision application filed, April 17, 2023

Publications

[1] V. H. Maluleke, L. Müller, J. Rajasegaran, G. Pavlakos, S. Ginosar, A. Kanazawa, and J. Malik, "Synergy and synchrony in couple dances," *arXiv preprint arXiv:2409.04440*, 2024.

[2] L. Müller, V. Ye, G. Pavlakos, M. J. Black, and A. Kanazawa, "Generative proxemics: A prior for 3d social interaction from images," in *Computer Vision and Pattern Recognition (CVPR)*, 2024.

[3] L. Müller*, H. Choi*, A. Zhang, B. Yi, J. Malik, and A. Kanazawa, "Reconstructing people, places, and cameras," *arXiv:2412.17806*, 2024.

[4] S. Subramanian, E. Ng, L. Müller, D. Klein, S. Ginosar, and T. Darrell, "Pose priors from language models," *arXiv*, 2024.

[5] B. Yi, V. Ye, M. Zheng, L. Müller, G. Pavlakos, Y. Ma, J. Malik, and A. Kanazawa, "Estimating body and hand motion in an ego-sensed world," *arXiv preprint arXiv:2410.03665*, 2024.

[6] S. Tripathi, L. Müller, C.-H. P. Huang, T. Omid, M. J. Black, and D. Tzionas, "3D human pose estimation via intuitive physics," in *Proceedings of the IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR)*, Jun. 2023.

[7] V. Choutas*, L. Müller*, C.-H. P. Huang, S. Tang, D. Tzionas, and M. J. Black, "Accurate 3d body shape regression using metric and semantic attributes," in *Computer Vision and Pattern Recognition (CVPR)*, 2022, pp. 2718–2728.

[8] M. Kocabas, C.-H. P. Huang, J. Tesch, L. Müller, O. Hilliges, and M. J. Black, "SPEC: Seeing people in the wild with an estimated camera," in *International Conference on Computer Vision (ICCV)*, 2021, pp. 11 035–11 045.

[9] L. Müller, A. A. A. Osman, S. Tang, C.-H. P. Huang, and M. J. Black, "On self-contact and human pose," in *Computer Vision and Pattern Recognition (CVPR)*, 2021, pp. 9990–9999.

[10] M. Shadaydeh, L. Müller, D. Schneider, M. Thümmel, T. Kessler, and J. Denzler, "Analyzing the direction of emotional influence in nonverbal dyadic communication: A facial-expression study," *IEEE Access*, vol. 9, pp. 73 780–73 790, 2021.

[11] L. Müller., M. Shadaydeh., M. Thümmel., T. Kessler., D. Schneider., and J. Denzler., "Causal inference in nonverbal dyadic communication with relevant interval selection and granger causality," in *International Joint Conference on Computer Vision, Imaging and Computer Graphics Theory and Applications (VISAPP)*, 2019, pp. 490–497.