Dr. Florian **Müller**

POSTDOCTORAL HUMAN-COMPUTER INTERACTION RESEARCHER · AR/VR ENTHUSIAST · STATISTICS NERD

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Summary

Florian Müller is a postdoctoral researcher in the field of Human-Computer Interaction with a strong background in designing complex computer systems using C# and Java. His research interests focus on Augmented Reality, Virtual Reality and body-based concepts for interaction in and with the physical world. He received his Ph.D. in these areas at the Telecooperation Lab at the Technical University of Darmstadt and is currently working there as a lead of the Human-Computer Interaction group.

Work Experience

Postdoctoral Researcher and Group Lead
Darmstadt, Germany

TECHNICAL UNIVERSITY DARMSTADT
Jan. 2020 - Today

- Leading the HCI research group of the Telecooperation Lab.
- Research on Urban Interaction in and with the physical World using Augmented Reality and Haptic Feedback.
- Teaching undergraduate and graduate students in the field of human-computer interaction.
- Grant application proposal writing.

Ph.D. Student and Research Associate
Darmstadt, Germany

TECHNICAL UNIVERSITY DARMSTADT
Apr. 2014 - Dec. 2019

- Technical and research lead of the *Smart Spaces* project, a joint project with the Electronics and Telecommunications Research Institute (ETRI) in Daejeon, South Korea.
- Lead of the SoftwareCampus project *NewViz* with focus on visualization and interaction techniques for Big Data in collaboration with Software AG
- Design, implementation, and analysis of a variety of controlled experiments and observational studies.
- Working on concepts for interaction with augmented interfaces on the go.

Education

Ph.D. in Human-Computer Interaction
Darmstadt, Germany

TECHNICAL UNIVERSITY DARMSTADT
2014 - 2019

- Thesis: *Around-Body Interaction: Leveraging Limb-movements for Interacting in a Digitally Augmented Physical World*. Graded with *Summa Cum Laude* (Highest Distinction)

M.Sc. in Computer Science
Darmstadt, Germany

TECHNICAL UNIVERSITY DARMSTADT
2011 - 2014

- Thesis: *Developing an Interactive 3D Visualization for Video Monitoring Centers*

B.Sc. in Computer Science
Darmstadt, Germany

TECHNICAL UNIVERSITY DARMSTADT
2008 - 2011

- Thesis: *The Usage of Spatial Information of Viewers for Interactive Television Systems*

Certificates & Awards

2020	**Nominee**, Outstanding Dissertation Award of the German Society for Computer Science (GI Dissertationspreis)	*Bonn, Germany*
2018	**Graduate of development program for future IT executives**, Software Campus with Software AG	*Berlin, Germany*
2019	**Honorable Mention Award**, CHI '19 - Conference on Human Factors in Computing Systems	*Glasgow, UK*
2012	**Best Paper Award**, EuroITV '12 - European Conference on Interactive TV and Video	*Berlin, Germany*

Invited Talks

2019	**University of Hamburg**, Mensch und Computer - Honored CHI Talks	*Hamburg, Germany*

Publications (Selection)

For a full list of 35+ publications, please see 🎓Google Scholar

2020	**Around-Body Interaction: Leveraging Limb Movements for Interacting in a Digitally Augmented Physical World**, Dissertation. DOI: 10.1145/3290605.3300707	
2020	**Around-Body Interaction: Interacting While on the Go**, In IEEE Pervasive Computing, vol. 19, no. 02. DOI: 10.1109/MPRV.2020.2977850	*IEEE Pervasive*
2020	**Walk The Line: Leveraging Lateral Shifts of the Walking Path as an Input Modality for HMDs**, In Proc. 2020 CHI Conference on Human Factors in Computing Systems. DOI: 10.1145/3313831.3376852	*ACM CHI '20*
2019	**Mind the tap: assessing foot-taps for interacting with head-mounted displays**, In Proceedings of the 2019 CHI Conference on Human Factors in Computing Systems. DOI: 10.1145/3290605.3300707	*ACM CHI '19*

Teaching

2021	**Hands-On HCI**, Planning, preparation and giving lectures	*Darmstadt, Germany*
2016-2019	**Ubiquitous / Mobile Computing (Lecture)**, Giving lectures and practical exercises	*Darmstadt, Germany*
2017	**Human Computer Interaction (Lecture)**, Giving lectures	*Darmstadt, Germany*
2015	**Foundations of Computer Science (Lecture)**, Organisation and preparation of practical exercises	*Darmstadt, Germany*
2016-2020	**Advanced User Interfaces (hands-on projects)**, Supervising Groups	*Darmstadt, Germany*
2014-2020	**B.Sc. and M.Sc. Theses**, Supervised 25+ B.Sc. and M.Sc Theses	*Darmstadt, Germany*

Program Committees

2020	**Special Sessions Chair & Virtual Setup Chair**, IEEE AIVR '20 - International Conference on Artificial Intelligence & Virtual Reality	*Utrecht, Netherlands*
2020	**Programm Comitee Member (Provocations and Works in Progess)**, DIS '20 - ACM conference on Designing Interactive Systems	*Eindhoven, Netherlands*
2019	**Programm Comitee Member (Short Papers)**, MUC '19 - Mensch und Computer	*Hamburg, Germany*
2019	**Workshop Organizer**, Workshop on Interacting with Smart Objects in conjunction with EICS '19	*Valencia, Spain*
2018	**Workshop Organizer**, Workshop on Interacting with Smart Objects in conjunction with CHI '18	*Montréal, Canada*
2018	**Workshop Organizer**, Workshop on Ubiquitous Personal Assistance in conjunction with Ubicomp '18	*Singapore*
2017	**Workshop Organizer**, Workshop on Interacting with Smart Objects in conjunction with IUI '17	*Limassol, Cyprus*
2016	**Workshop Organizer**, Workshop on Interacting with Smart Objects in conjunction with IUI '16	*Sonoma, CA, USA*

Reviewing Activity

CHI	**Conference on Human Factors in Computing Systems**	*2017-2020*
CHI Play	**Annual Symposium on Computer-Human Interaction in Play**	*2019*
DIS	**Conference on Designing Interactive Systems**	*2018-2020*
UIST	**User Interface Software and Technology Symposium**	*2018*
MuC	**Mensch und Computer**	*2018-2020*
MobileHCI	**International Conference on Human-Computer Interaction with Mobile Devices and Services**	*2017-2020*
IMWUT	**Proceedings of the ACM on Interactive, Mobile, Wearable and Ubiquitous Technologies**	*2019-2020*
ISMAR	**International Symposium on Mixed and Augmented Reality**	*2017-2019*
SUI	**Symposium on Spatial User Interaction**	*2017-2018*

Skills

Programming	Java, C#, R, Dart
Research Design	Controlled experiments, observational studies, focus groups, (semi-) structured interviews
Quantitative Analysis	Statistical models, (non-) parametric hypothesis testing (e.g., ANOVA), effect size, statistical power
Qualitative Analysis	Open Coding, thematic analysis
Languages	German, English