Amit Singh, M.Sc.

amit.singh@uni-paderborn.de

https://amits1ngh.github.io

@amits1ngh **J** +49 17640425390

in Amit Singh

Experience

Research

2021 – present

Research Assistant, SFB-TRR318, Universität Paderborn

"Constructing Explainability", Projekt Ao5, Contextualized and online parametrization of attention in human-robot explanatory dialog (link)

Education

2021 – present

Universität Paderborn, Paderborn, Germany

PhD in Psycholinguistics (ongoing) Supervision: Prof. Dr. Katharina Rohlfing

2018 - 2020

University of Hyderabad, Hyderabad, India

M.Sc. Cognitive Science, (Distinction, 9.12/10 gpa.)

Major: Psycholinguistics Minor: Pattern Recognition

Dissertation: Influence of interlocutor identity on bilingual language selection - An eye-

tracking study (Supervision: Prof. Ramesh Kumar Mishra)

2014 - 2017

Jawaharlal Nehru University, New Delhi, India

B.A.(Hons.), Germanistik Major: Linguistics

2013 - 2014

Delhi College of Arts and Commerce, University of Delhi, Delhi

Zertifikat auf Deutsch (A1)

2001 - 2013

Central Board of Secondary Education (CBSE), New Delhi

Senior Secondary School Examination, Class 12th

Stream: Science (Physics, Mathematics, Chemistry, English)

Research Publications

Conference Proceedings

A. Singh and K. J. Rohlfing, "Coupling of Task and Partner Model: Investigating the Intra-Individual Variability in Gaze during Human-Robot Explanatory Dialogue," in 26th ACM International Conference on Multimodal Interaction (to appear, ICMI 2024), San Jose, Costa Rica, 2024. O URL: https://doi.org/10.1145/3686215.3689202.

A. Singh and K. J. Rohlfing, "Contrastiveness in the context of action demonstration: An eye-tracking study on its effects on action perception and action recall," in Proceedings of the Annual Meeting of the Cognitive Science Society (CogSci 2023), vol. 45, Sydney, Australia, 2023. O URL: https://escholarship.org/uc/item/2w94t4cv.

- A. Singh and K. J. Rohlfing, "Does contrastive attention guidance facilitate action recall? an eye-tracking study," in *Proceedings of KogWis2022, the 5th Biannual Conference of the German Society for Cognitive Science*, E. Ferstl, L. Konieczny, R. von Stülpnagel, J. Beck, and L. Zacharski, Eds., Albert-Ludwigs-Universität Freiburg, Freiburg, Germany, Sep. 2022.
- A. Singh and K. J. Rohlfing, "Negation processing in action: How action path is interpreted in a negated context?" In *Book of Abstracts XPRAG 2022*, F. Frau, L. Bischetti, C. Pompei, B. Scalingi, F. Domaneschi, and V. Bambini, Eds., 2022.

Journal Articles

- A. Singh and K. J. Rohlfing, "Contrastive verbal guidance and its impact on goal attention and action memory," *Language, Cognition and Neuroscience (under review)*, 2024.
- A. Groß, A. Singh, N. C. Banh, *et al.*, "Scaffolding the human partner by contrastive guidance in an explanatory human-robot dialogue," English, *Frontiers in Robotics and AI*, vol. 10, Oct. 2023, ISSN: 2296-9144. ODI: 10.3389/frobt.2023.1236184.

Invited Talks

Physics of Cognition Group, TU Chemnitz, December 2023.

Skills

English (Proficient)

Hindi (Native)

Coding R (Expert, Inferential Statistics, Linear and Nonlinear Modelling, Bayesian Analysis)

Python (Intermediate, Sklearn, Machine learning), Git console, LTEX publishing

Tools Remote and Mobile Eyetracking, TobiiPro (Screen based), PupilPro Lab (Glasses)

Misc. NAO Robot programming and conducting behavioural experiments in HRI

Other Experiences

Industry

2017 – 2018 **Translation Associate - German (full-time)**, Amazon Development Center, Bangalore, India

Services

Reviewer | Journal

Cognitive Science Society Open Psychology

Awards and Achievements

Dec 2020 | Junior Research Fellow (JRF)

Awarding body: University Grants Commission

Other Experiences (continued)

Certification and Internships

2019 Research Intern, Software Engineering Research Center, IIIT Hyderabad

Version control (Github), open source development, testing and implementing a JavaScript based speech signal application

Mar 2021 Machine Learning, Coursera

Apr 2021 Natural Language Processing with Classification and Vector Spaces, Deeplearning.ai

Extracurricular Achievements

Dance Winner, 1st prize, Solo Dance, Sukoon Annual Fest, University of Hyderabad, 2019 Winner, 1st prize, Solo Dance, Amazon RBS Bash, Amazon, 2017

Elected Convener, JNU Dance Club (JNU, New Delhi), 2014 - 2015

Volunteering Volunteer, MaRRS International Spelling Bee Competition, Osmania University, 2015
Volunteer, Workshop on Cognitive Science in Education, UoH, Hyderabad, 2019

References

On request