

ALINA HERDERICH, PHD

University of Graz, Idea Lab Group Data Analysis | Postdoctoral Researcher

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EDUCATION

2021 - 2025	PhD (Dr. rer. nat.) Computer Science Graz University of Technology, Institute of Human-Centered Computing, Computational Social Science Lab Austria Advisor: Prof. David Garcia Thesis: Computational Approaches to Human Behavior: From Emotion Regulation to Hate Speech Grade: 1.0 (23rd June 2025)
2019 - 2020	Computer Science Certificate (25 ECTS), Route 63 Graz University of Technology Grade: 1.0 (12th March 2020)
2018 - 2020	M.Sc. Psychology University of Graz Advisor: Prof. Harald Freudenthaler Thesis: How Does Flexibility in Emotion Regulation Relate to Dimensions of Adaptivity? Development and Validation of a New Measure for ER Repertoire and Flexibility. Grade: 1.1 (30th September 2020)
2016 - 2018	B.Sc. Psychology University of Graz Grade: 1.3 (19th March 2018)
2013	Chinese Language & Culture Studies (20 ECTS), exchange semester Shanghai Normal University Grade: 90/100
2011 - 2015	B.Sc. Business Psychology & Economics University of Lüneburg Grade: 1.5 (24th March 2015)
2011	Abitur (German university entrance qualification) Albert-Schweitzer-Gymnasium Crailsheim Grade: 1.0 (07th July 2011)

QUALIFICATIONS

Natural Languages	German (mother tongue), English (C1), Chinese (B2), French & Spanish (~A2)
Programming Languages	Python, SQL
Prizes	High-School Diploma Prize of the German Mathematical Association

RESEARCH EXPERIENCE

06/2025 - today	Postdoctoral Researcher @IDea_Lab, University of Graz
01/2025 - 06/2025	Doctoral Researcher @IDea_Lab, University of Graz
09/2023 - 08/2024	Visiting Fellow @Goldenberg Lab, Harvard, Cambridge, Massachusetts, USA Research projects: Developing a taxonomy of reappraisal types, and investigating the reappraisal ability of large language models (GPT) against humans, supported by various scholarships (see <i>Funding</i>)
2021 - 2024	Doctoral Researcher @Institute of Human-Centered Computing, Graz University of Technology
2021 - today	Cooperation with Prof. Mirta Galesic @Santa Fe Institute, New Mexico, USA Research project on the effectiveness of counter speech strategies in online political discourse under the NSF grant <i>Exploration-exploitation tradeoff and opinion diversity in real-world groups</i> (Award ID: 1757211)
2018	Research Internship (3 months) Charité Universitätsmedizin Berlin, Department of Anesthesiology and Operative Intensive Care Medicine (CCM/CVK) Biomarker Development for Postoperative Cognitive Impairment in the Elderly (www.biocog.eu)

TALKS & WORKSHOPS

03/2025	German Physical Society (DPG), Spring Meeting Regensburg 2025 Condensed Matter Section, invited talk <i>When networks can think: The meaning of self-regulation in the presence of humans</i>
02/2025	AI and Counter-Speech: An Interdisciplinary Workshop on User-Centered and Ethical Detection and Interventions at Scale, invited talk and participant Bavarian Research Institute for Digital Transformation (bidt) @LMU Munich <i>Counter speech: Fighting windmills?</i>
07/2024	International Conference for Computational Social Science (IC2S2) 2024 <i>A computational method to reveal psychological constructs from text data</i>
03/2024	Annual Conference of the Society for Affective Science (SAS) 2024, symposium presentation, symposium chair <i>Inferring a data-driven taxonomy of emotion regulation strategies with computational methods</i> , in: Understanding affective experiences with natural language processing
02/2024	Annual Convention of the Society of Personality and Social Psychology (SPSP) 2024, poster presentation <i>Inferring a data-driven taxonomy of emotion regulation strategies with computational methods</i>
07/2023	International Conference for Computational Social Science (IC2S2) 2023 <i>Improving discourse quality in online discussions: A large-scale, longitudinal study of influencing speech characteristics</i>

07/2023	International Conference on Network Science (NetSci) 2023 <i>Improving discourse quality in social media networks: A large-scale, longitudinal study of influencing speech characteristics</i>
06/2023	Chinese Bridge Competition Austria, 2nd place Language competition hosted by the Confucius Institute Vienna <i>'One World, One Nation' (天下一家) through the eyes of a psychologist</i>
08/2022	European Forum Alpbach Alpbach Technology Talks hosted by the Austrian Institute of Technology <i>Breaking the Wall of Emotional Well-Being</i>
06/2022	Conference of the Consortium of European Research on Emotion (CERE) 2022 <i>Deriving emotion regulation strategy classes using a computational grounded theory approach</i>
05/2022	Falling Walls Lab Austria, 2nd place Competition, pitching an innovative research idea in just three minutes <i>Breaking the Wall of Emotional Well-Being</i>

TEACHING

06/2024	Workshop: Before model training - Crafting high-quality text annotations for machine learning International Conference on Web and Social Media (ICWSM) 2024
2021	Workshop: A psychologist's guide to machine learning University of Zurich, for researchers at the department of psychology
2020	Teaching Assistant Databases & Data Management Graz University of Technology

FUNDING

2023 - 2024	Agency for Education and Internationalization Austria, OeAD (19,920 €) <i>Marietta Blau Scholarship</i> to support visiting fellow activity at Harvard University in the academic year of 23/24 (partially claimed)
2023 - 2024	Marshall Plan Foundation Austria (10,000 €) Scholarship to support visiting fellow activity at Harvard University in the academic year of 23/24
2023 - 2024	German Academic Scholarship Foundation (24,300 USD) <i>ERP scholarship</i> to support visiting fellow activity at Harvard University in the academic year of 23/24 (partially claimed)

ADDITIONAL QUALIFICATIONS

2025 (ongoing)	Career program for female scientists Coordination Centre for Gender Studies and Equal Opportunities, University of Graz Competencies, strategies, and networking for a career in academia
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07/2022	Complexity-GAINs summer school (2 weeks) Santa Fe Institute, New Mexico & Complexity Science Hub, Vienna Disintegration of societies: Quantitative modeling of complex socio-behavioral systems
2019 - 2021	Data Team Graz University of Technology Participating in data science challenges in teams / ASHRAE - Great Energy Predictor III (How much energy will a building consume?) / Jigsaw Multilingual Toxic Comment Classification (Identify toxic online comments.) / HuBMAP - Hacking the Kidney (Identify glomeruli in images of the human kidney.)

SERVICE

2022 - 2025	Doc School Speaker and elected member of the PhD Union Student representative for the student body of the Doctoral School of Computer Science, and all PhD students at TU Graz
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REVIEWING ACTIVITIES

Journals	Psychological Science, Behavior Research Methods, EPJ Data Science, Cyberpsychology
Conferences	IC2S2

OUTSIDE ACADEMIA

2015 - 2016	GGH Mullen Lowe Hamburg (advertising agency) Junior strategic planner E.ON, Seat, Fielmann, international new business
2015	FCB Hamburg (advertising agency, 6 months) Strategic planning internship NIVEA, international level
2014	Publicis Pixelpark (advertising agency, 6 months) Strategic planning internship Barmer GEK, Telekom, VISA, BNP Paribas, Swarovski

PUBLICATIONS

- Herderich, A., Freudenthaler, H. H., & Garcia, D. (2024). A Computational Method to Reveal Psychological Constructs from Text Data. *Psychological Methods*, Advance online publication. <https://doi.org/10.1037/met0000700>
- Lasser, J.*, Herderich, A.*, Garland, J., Aroyehun, S. T., Garcia, D., & Galesic, M. (2023). *Collective moderation of hate, toxicity, and extremity in online discussions*. ArXiv. <https://arxiv.org/abs/2303.00357>
- Herderich, A.*, Lasser, J.*, Galesic, M., Aroyehun, S. T., Garcia, D., & Garland, J. (2024). *Measuring complex psychological and sociological constructs in large-scale text*. PsyArxiv. <https://doi.org/10.31234/osf.io/tzc9p>

- Li, J. Z., Herderich, A., Nair, P., Perry, A., & Goldenberg, A. (2025). *Exploring Human and AI Emotional Support Through Reframing of Negative Situations*. PsyArxiv. <https://doi.org/10.31234/osf.io/fzvd8>
- Herderich, A., Li, J. Z., & Goldenberg, A. (2024). *Data-driven classification of interpersonal reappraisals reveals eight distinct reappraisal strategies [Scholarship Paper]*. Austrian Marshall Plan Foundation. <https://www.marshallplan.at/papers-2024>
- Röseler, L., Kaiser, L., Doetsch, C. A., Klett, N., Seida, C., Schütz, A., ..., Herderich, A., ..., & Zhang, Y. (2024). The Replication Database: Documenting the Replicability of Psychological Science. *Journal of Open Psychology Data*, 12(8), 1–23. <https://doi.org/10.5334/jopd.101>
- Frank, M., Grüning, D. J., Pronizius, E., Korbmacher, M., Elsherif, M. M., Bergmann, L., ... Herderich, A. (2024). *Mapping students' Open Science attitudes and preferences: Country and education level differences - PCI RR Stage 1 Report*. PsyArxiv. <https://doi.org/10.31219/osf.io/7gbvp>

* shared first authorship