### Suhaib Abdurahman

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Personal Website: https://sabdurahman.pages.dev

EDUCATION	PhD Social Psychology (University of Southern California) Advisor: Morteza Dehghani Focus: Theory-Based Computational Social Psychology	expected 2026
	M.A. Psychology (University of Southern California) Focus: Computational Methods in Social Psychology	2023
	B.S. Psychology (FU Berlin)	2021
	M.S. Energy and Process Engineering (TU Berlin) Focus: Process Optimization and Control	2021
	B.S. Energy and Process Engineering (TU Berlin)	2018
RESEARCH TOPICS	Psychology of AI, Multi-Agent LLM Systems, Online Behavior Analytics, Decision-Making, Misinformation & Conflicts, Mental Health & Technology	
RESEARCH METHODS	Natural Language Processing, Machine Learning, Behavioral Experiments, Agent-based Modeling, Multilevel Modeling, Bayesian Statistics, Predictive Modeling	
RESEARCH	Research Assistant (University of Southern California)	2021 - present

# **EXPERIENCE**

# Research Assistant (University of Southern California)

 $Dr.\ Morteza\ Dehghani\ (Morality\ \&\ Language\ Lab)$ 

- Published four papers in high-impact journals
- Applied NLP and machine learning on large-scale misinformation and mental health datasets
- Integrated agent-based modeling and LLMs to simulate and study complex social phenomena, such as intergroup conflicts
- Designed and executed multiple complex behavioral studies on topics related to misinformation, moral behavior, and intergroup conflicts

#### Visiting Predoctoral Fellow (Kellog School of Management) 2024 Dr. Nour Kteily

- Applied advanced statistical methods to analyze social media behavior in largescale #MeToo datasets
- Designed and implemented NLP pipelines for large-scale scientific experiments
- Developed a multi-agent LLM framework to simulate realistic human behaviors

#### Research Assistant (TU Berlin)

2020-2021

Dr. Kraume & M.Sc. Joschka Schulze

• Developed an NLP pipeline to automate finding and analyzing research papers on interfacial effects in disperse multi-phase systems

• Identified over 50 relevant papers and conducted a meta-analysis of surfactants' influence on interfacial effects

#### Visiting Student (UPenn)

2019-2020

Dr. Sudeep Bhatia & Dr. Lyle Ungar

- Published in top computer science conference proceeding (ACL) and top psychology journal (JPSP)
- Investigated representations of psychological constructs in LLM embeddings
- Designed and executed behavioral and computational experiments
- Built predictive machine learning models based on findings.

### Undergraduate Research Assistant (FU Berlin)

2018-2021

Dr. Philipp Schäpers & Dr. Helén Lieberman

- Investigated the predictive validity of job-postings for future work experiences using NLP and machine learning
- Designed and executed behavioral experiments regarding humor and individual trait preferences in first-contact situations
- Built predictive models based on findings

PUBLICATIONS Abdurahman, S.\*, Atari, M.\*, Karimi-Malekabidi, F., Trager, J., Park, P, Xue, J., Dehghani, M. (2024). Perils and Opportunities in Using Large Language Models in Psychological Research. PNAS Nexus

> Abdurahman, S., Reimer, N.K., Golazizian, P., Baek, E., Shen, Y., Trager, J., Lulla, R., Kaplan, J., Parkinson, C., Dehghani, M. (2024). Targeting Audiences' Moral Values Shapes Misinformation Sharing. Journal of Experimental Psychology: General

> Abdurahman, S.\*, Vu, H.\*, Zou, W., Ungar, L., & Bhatia, S. (2023). A Deep Learning Approach to Personality Assessment: Generalizing Across Items and Expanding the Reach of Survey-Based Research. Journal of Personality and Social Psychology

> Preston, E. G., Abdurahman, S., Woodward, D. W., & West, A. E. (2023). Sharing is in fact about caring: Care concerns feature prominently in subreddits devoted to self-injurious thoughts and behaviors. Computers in Human Behavior, 145, 107786.

> Vu, H.\*, Abdurahman, S.\*, Bhatia, S., & Ungar, L. (2020). Predicting responses to psychological questionnaires from participants' social media posts and question text embeddings. Findings of the Association for Computational Linguistics: EMNLP 2020, 1512-1524.

#### WORKING **PAPERS**

Abdurahman, S., Ziabari, A. S., Moore, A., Bartels, D., & Dehghani, M. (2024, April 22). Evaluating Large Language Models in Psychological Research: A Reporting Guideline. (Under revision, AMPPS, 2024)

Osborne, M., Abdurahman, S., Omrani, A., Trager, J., Dehghani, M. (2024) Two Wrongs Is What Makes It Right: How Retaliatory Incivility Garners Social Rewards (Under review, JPSP)

Trager, J., Karimi-Malekabadi, F., Abdurahman, S., & Dehghani, M. (2024). Ideological Threat Influences Political Prejudice: Evidence from Tweets and Real World Events (Under review, Political Psychology)

Abdurahman, S., Jordan, J., Omrani, A., Kteily, N., & Dehghani, M. (2024). Proportionality and Ambiguity in Public Condemnation: Evaluating Social Media Responses to Third-Party Accusations (Manuscript in Preparation)

Abdurahman, S., & Dehghani, M. (2024). Exploring Social Dynamics Through Multi-Agent LLM Systems (Manuscript in Preparation)

CONFERENCES Abdurahman, S., Reimer, N. K., Golazizian, P., Baek, E., Shen, Y., Trager, J., Lulla, R., Kaplan, J., Parkinson, C., Dehghani, M. (2024). Investigating the Impact of Targeting Audiences' Moral Values on Sharing Online-Misinformation. SPSP

> Abdurahman, S., Vu, H., Zou, W., Ungar, L., Bhatia, S. (2024). A Deep Language Approach to Personality Assessment: Generalizing Across Items and Expanding the Reach of Survey-Based Research. SPSP

> Preston, E., Abdurahman, S. (2023). Sharing is in Fact about Caring: Care Concerns Feature Prominently on Subreddits Devoted to Self-Injurious Thoughts and Behaviors. SPSP

> Osborne, M., Abdurahman, S., Trager, J., Omrani, A., Dehghani, M. (2022). Fighting Fire with Fire: How groups incentivize incivility on social media platforms. Psychology of Technology

> Osborne, M., Abdurahman, S., Omrani, A. (2022). Responding to Wrongdoing: Status Conferral in Online Conflicts. Media & Technology Preconference @ SPSP

#### **PROJECTS**

Master's Thesis: Morteza Dehghani (University of Southern California) How Misinformation Exploits Moral Values and Framing: Insights from Social Media Platforms and Behavioral Experiments

Master's Thesis: Joschka Schulz & Matthias Kraume (TU Berlin) An exemplary study on automated categorisation and evaluation of peer-reviewed scientific literature concerning interfacial effects in disperse multi-phase systems

Bachelor's Thesis: Philipp Schäpers & Stefan Krumm (FU Berlin) Predicting Job-Ratings from Job-Postings using Natural Language Processing: A Machine Learning Approach to Understanding Corporate Language

Bachelor's Thesis: Lia Strenge & Jörg Raisch (TU Berlin) Model Identification for Designing a PWM-based Solar Charge Controller

#### INDUSTRY EXPERIENCE

#### Management Assistant, MicroEnergy International GmbH 2018 - 2019

- Developed code to automate internal processes, e.g. creating financial reports.
- Analyzed operational procedures and presented findings to senior management.

#### RELATED **SKILLS**

Python, R, C, JavaScript, MATLAB, SQL

Machine Learning, Data Analytics, and NLP (sklearn, pytorch, tensorflow, mongodb) Statistics (multivariate regression, structural equation modeling, time series analysis)

FELLOWSHIPS	USC PhD Academy Research Grant	2024
AND	ERP Fellowship	2022
GRANTS	Ernst-Reuter Fellowship	2019
	Avicenna Fellowship	2018
	Avicenna Fellowship	2015
SERVICE	• Conference Review  Cognitive Science Society (CogSci) 2022	
	• Journal Review	

Computers in Human Behavior

Behavior Research Methods

Advances in Methods and Practices in Psychological Science

Frontiers in Social Psychology

 $\bullet \ \ Departmental \ Service$ 

Graduate Student Mentorship Program Coordinator

# LANGUAGES

- English (Fluent)
- German (Fluent)
- Tigrinya (Heritage)