# Joe Hoover

# Postdoctoral Fellow Kellogg School of Management Northwestern University

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Quantitative Research
NLP/NLU
Predictive Modeling
Survey Methodology
Causal Inference
Machine Learning
Bayesian Modeling
Data Visualization

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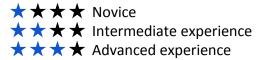
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R  $\star \star \star \star$ Python  $\star \star \star \star \star$ Shiny/Plotly  $\star \star \star \star$ SQL/MongoDB  $\star \star \star \star$ PyTorch  $\star \star \star \star$ 



## Profile

PhD data scientist with a history of using computational and social science methods to answer questions about social dynamics and human behavior. Passion for developing efficient, results oriented solutions to difficult analytic problems. Deep technical expertise with a background in the humanities and experience communicating with non-technical stakeholders.

# **Experience**

## Postdoctoral Fellow, Kellogg School of Management

Northwestern University

Chicago, Illinois October, 2019 - Present

Lead projects and consult on secondary projects focused on social science, NLP, and social media analytics. Design and implement Deep Learning-based NLP systems for fine-grained, target-based sentiment analysis

# **Graduate Research Fellow, Computational Social Sciences Lab**

University of Southern California

Los Angeles, California September, 2015 - September, 2019

Focused on NLP, statistics, social media analytics, and survey methods to study human values and real-world outcomes like charitable donation and hate speech

#### **Data Science Consultant**

Independent Contractor

March, 2017 - Ongoing

Design and implement custom solutions to analytic problems related to hypothesis testing, NLP, and market segmentation

#### **Data Science Intern**

Ranker

Los Angeles, CA June, 2017 - August, 2017

Developed time-series models (ARIMAX) for dynamic Google AdSense ad pricing and developed Slackbot information recall system for embeddings-based similarity queries





#### **PhD**

#### **Psychology**

University of Southern California Los Angeles, CA 2015 - 2020

#### MS

## **Psychology**

University of Oregon Eugene, OR 2013 - 2015

#### BA

#### **English**

Central Connecticut State University New Britain, CT 2010

## **Publications**

#### Selected Journal Articles

- **Hoover, J.,** Atari, M, Mostafazadeh, A, Kennedy, B, Portillo-Wightman, G, Yeh, L, & Dehghani, M. (Revise and Resubmit). Bound in Hatred: The role of group-based morality in acts of hate. *Nature Communications.* pdf
- **Hoover, J.**, Dehghani, M. (2019). The big the bad, and the ugly: Geographic estimation with flawed psychological data. *Psychological Methods*. <u>Pdf</u>
- **Hoover, J.**, et. al. (2019). Moral Foundations Twitter Corpus: A collection of 35k tweets annotated for moral sentiment. *Social Psychological and Personality Science*. pdf
- **Hoover, J.\***, Mooijman, M.\*, Lin, Y., Ji, H., Dehghani, M. (2018). Moralization in social networks and the emergence of violent protests. *Nature Human Behavior*. <u>pdf</u>
- Hoover, J., Johnson, K., Boghrati, R., Graham, J., Dehghani, M. (2018). Moral Framing and Charitable Donation: Integrating Exploratory Social Media Analyses and Confirmatory Experimentation. *Collabra: Psychology.* Vol. 4 (1) pdf
- Garten, J., Hoover, J., Johnson, K., Boghrati, R., Iskiwitch, C., Dehghani, M. (2017). Dictionaries and Distributions: Combining Expert Knowledge and Large Scale Textual Data Content Analysis. *Behavior Research Methods*. pdf
- Iliev, R., **Hoover, J.**, Dehghani, M., Axelrod, R. (2016). Linguistic positivity in historical texts reflects dynamic environmental and psychological factors. *Proceedings of the National Academy of Sciences*. pdf

## Selected Proceedings

- Lin, Y., Hoover, J., Portillo-Wightman, G., Park, C., Dehghani, M., and Heng, J. (2018). Acquiring Background Knowledge to Improve Moral Value Prediction. Paper presented at The 2018 IEEE/ACM International Conference on Advances in Social Networks Analysis and Mining (ASONAM2018)
- **Hoover, J.**, Horton, K., Dehghani, M. (2017). The Meanings of Morality: Investigating the psychometric properties of distributed representations of latent moral concepts. In the proceedings of 38th Annual Conference of the Cognitive Science Society (CogSci).