Curriculum Vitae

Shreya Havaldar

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EDUCATION

University of Pennsylvania

August 2021 - May 2026 (anticipated)

PhD Computer and Information Science Advisors: Lyle Ungar, Eric Wong

University of Southern California

August 2017 - May 2021

B.S. Computer Science
B.S. Applied & Computational Mathematics

Advisor: Morteza Dehghani

RESEARCH STATEMENT

I specialize in culturally-aware multilingual NLP, analyzing how culture influences linguistic styles (emotion, politeness, etc.), creating explanation methods to derive cultural insight from black-box models, and mitigating Anglocentric bias in modern LMs. Currently, I am working on (1) quantifying & explaining how translation fails to preserve style, (2) psychologically grounded metrics for dialog system evaluation, and (3) measuring regional variation in culture both within the US and globally.

AWARDS & HONORS

NSF Graduate Research Fellowship (2023)

Best Paper Award at WASSA (2023)

Summa Cum Laude (2021)

USC Computer Science Outstanding Student Award (2021)

USC Computer Science Outstanding Service Award (2021)

Cisco Engineering Excellence Scholarship (\$5,000/year)

USC Presidential Scholarship (~\$30,000/year)

National Merit Scholarship (\$1,000/year)

Brittingham Social Enterprise Lab Scholar (2020)

Grace Hopper Research Scholar (2018, 2019)

Havaldar, S.*, You, W.*, Ungar, L., Wong, E,. (2023). Visual Topics via Visual Vocabularies. *Under Review.*

Havaldar, S., Pressimone, M., Wong, E., Ungar, L. (2023). Comparing Styles across Languages. *Under Review.*

Giorgi, S., **Havaldar, S.**, Ahmed, F., Akhtar, Z., Vaidya, S., Pan, G., Ungar, L., Schwartz, H. A., & Sedoc, J. (2023). Human-Centered Metrics for Dialog System Evaluation. *Under Review*.

Havaldar, S., Giorgi, S., Talhelm, T., Guntuku, S. C., & Ungar, L. (2023). Building Knowledge-Guided Lexica to Model Cultural Variation. *Under Review*.

PUBLICATIONS (* indicates equal contribution)

Havaldar, S., Rai, S., Singhal, B., Liu, L., Guntuku, S. C., & Ungar, L. (2023). Multilingual Language Models are not Multicultural: A Case Study in Emotion. *WASSA @ ACL. Best Paper Award.*

Lyu, Q.*, **Havaldar, S.***, Stein, A.*, Zhang, L., Rao, D., Wong, E., Apidianaki, M., & Callison-Burch, C. (2023). Faithful Chain-of-Thought Reasoning. *AACL*.

Havaldar, S., Stein, A., Wong, E., & Ungar, L. (2023). TopEx: Topic-based Explanations for Model Comparison. *ICLR (Tiny Papers Track)*.

Aggarwal, A., Rai, S., Giorgi, S., **Havaldar, S.**, Sherman, G., Mittal, J., & Guntuku, S. C. (2023). A Cross-Modal Study of Pain Across Communities in the United States. *ACM Web Conference (Companion Proceedings)*.

Stade, E. C., Ungar, L., **Havaldar, S.**, & Ruscio A. M. (2023). Perseverative Thinking is Associated with Features of Spoken Language. *Behavior Research and Therapy*.

Mostafazadeh Davani, A., Atari, M., Kennedy, B., **Havaldar, S.**, & Dehghani, M. (2020). Hatred is in the Eye of the Annotator: Hate Speech Classifiers Learn Human-Like Social Stereotypes. *Proceedings of the 42nd Annual Conference of the Cognitive Science Society*.

Kennedy, B., Atari, M., Mostafazadeh Davani, A., Yeh, L., Omrani, A., Kim, Y., Coombs Jr., K., **Havaldar, S.**, et al. (2020). The Gab Hate Corpus: A Collection of 27k Posts Annotated for Hate Speech. *Language Resources and Evaluation.*

Khaled, M., Corner, G. W., Morris, A., **Havaldar, S.**, Luo, E., Saxbe, D. (2020). Physiological Linkage in Pregnancy: Couples' Cortisol, Negative Conflict Behavior, and Postpartum Depression. *Journal of Biological Psychology*.

Hoover, J., Portillo-Wightman, G., Yeh, L., **Havaldar, S.**, Davani, A. M., et al. (2020). Moral Foundations Twitter Corpus: A Collection of 35k Tweets Annotated for Moral Sentiment. *Social Psychological and Personality Science*.

TEACHING EXPERIENCE

UPenn School of Engineering and Applied Science

August 2022 - Present

Teaching Assistant: CS5300 (Computational Linguistics), CS3990 (Mathematics of Machine Learning)

- Assisting with creating/testing curriculum, holding weekly office hours to help students with theoretical understanding and homework assignments

USC Department of Computer Science

Fall 2018 - May 2021

Teaching Assistant: CS170 (Discrete Methods in Computer Science), CS270 (Intro to Algorithms)

- Designed and led weekly discussion sections, held office hours to help students with theoretical understanding and homework assignments

USC Undergraduate Center for AI in Society (CAIS++)

Fall 2019 - May 2021

Curriculum Lead

- Held weekly ML lessons for a cohort of 8 undergraduate students, focused on the fundamentals of applied and theoretical machine learning.

USC Joint Educational Project

Fall 2018 - Spring 2019

Undergraduate Teacher

 Designed and implemented a comprehensive curriculum to teach local LA elementary school students about introductory computer science concepts through MIT's Scratch

WORK EXPERIENCE

Microsoft - MSAI (Bellevue, WA | Remote)

Summer 2020, Summer 2021

Software Engineering & Data Science Intern

- Configured a topic extraction pipeline to include database ingestion in order to include 10,000+ tenant-level features for the Microsoft Search, Assistance, and Intelligence team
- Led research and experimentation for a proposed topic classification model using various supervised learning methods and domain-specific feature selection

Microsoft - Azure Identity (Redmond, WA)

Summer 2019

Software Engineering Intern

- Worked on Microsoft Identity's mid-tier graph-based database system, added functionality to implement link counts and complex link querying capabilities
- Utilized Lucene to query indexed data and Azure Service Fabric to test on a local cluster

LEADERSHIP

Association for the Advancement of Artificial Intelligence

Fall 2017 - Spring 2020

President, Event Coordinator

- Led the AAAI USC student chapter; planned AI-focused workshops, hackathons, and outreach events to encourage USC students from all backgrounds to explore AI
- Developed workshops on perceptrons, neural networks, and computer vision

AthenaHacks

Spring 2019 - May 2021

Logistics Organizer

 Worked on the Logistics committee to plan Southern California's largest all-female hackathon and empower high school/university women in the technology field

Environmental Student Assembly

Fall 2019 - May 2021

Director of Technology

- Redesigned and maintained the ESA website, worked with USC's undergraduate student government to facilitate sustainability on campus
- Assisted with the organization of a campus-wide composting initiative

AAAI Elementary Student Outreach

Spring 2018 - Spring 2019

Program Director

- Worked with Dr. Sheila Tejada to lead AI outreach events for local children during the AAAI-18 and AAAI-19 international conferences

Society of Women Engineers

Fall 2017 - Spring 2019

High School Mentor

 Acted as a year-round mentor to three girls from a Los Angeles high school; provided guidance on standardized tests and the college application process as an engineering major