Faeze Brahman

POSTDOCTORAL RESEARCHER · COMPUTER SCIENCE · ALLEN INSTITUTE FOR AI | UNIVERSITY OF WASHINGTON

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Research Interests _____

NLP, Human Al Alignment, Trustworthy Al, Human Computer Interaction

Professional Experience _

Postdoctoral Researcher 04/2022-present

ALLEN ALLEN INSTITUTE FOR ARTIFICIAL INTELLIGENCE (COURTESY APPOINTMENT AT THE UNIVERSITY OF WASHINGTON)

· Mentor: Yejin Choi

Research Intern 06/2021-09/2021

MICROSOFT RESEARCH - DEEP LEARNING GROUP

• Hosts: Michel Galley, Jianfeng Gao

• Project: Controllable Grounded Long-Form Text Generation

Research Intern 06/2020-09/2020

ALLEN ALLEN INSTITUTE FOR ARTIFICIAL INTELLIGENCE (AI2) - MOSAIC GROUP

• Hosts: Vered Shwartz, Yejin Choi

• Project: Distant Supervision Methods for Explainable AI

Research Intern 06/2018-09/2018

XEROX PARC - INTERACTION & ANALYTIC LAB (IAL)

Host: Kyle Dent

• Project: RFP Response Assistant System using Semantic Contextualized vectors for retrieval.

Education_

University of California, Santa Cruz

Santa Cruz, CA

PHD IN COMPUTER SCIENCE (GPA: 3.87)

2022

- Thesis: Modeling Key Narrative Elements for Automatic Story Generation
- · Advisor: Snigdha Chaturvedi

MS IN COMPUTER SCIENCE (GPA: 3.87)

2018

• Advisor: Marilyn Walker

Iran University of Science and Technology

Tehran, Iran

MS IN ELECTRICAL ENGINEERING (GPA: 3.91)

2014

- Thesis: Electrical and Thermal Energy Management of Residential Energy Hubs
- · Advisor: Shahram Jadid

BS IN ELECTRICAL ENGINEERING (GPA: 3.54)

2012

• Graduated as Outstanding Student

Publications_

Google Scholar: https://scholar.google.com/citations?user=viCG2ikAAAAJhl=en
Semantic Scholar: https://www.semanticscholar.org/author/Faeze-Brahman/9252833

PREPRINTS AND IN SUBMISSIONS

An Ecosystem for Sandboxing Safety Risks in Human-Al Interactions

Xuhui Zhou, <u>Faeze Brahman</u>*, Hyunwoo Kim*, Liwei Jiang, Hao Zhu, Ximing Lu, Frank F. Xu, Bill Yuchen Lin, Yejin Choi, Niloofar Mireshghallah, Ronan Le Bras, Maarten Sap @ *Under submission*

Hybrid Preferences: Learning to Route Instances for Human vs. AI Feedback

Lester James Validad Miranda, Yizhong Wang, Yanai Elazar, Sachin Kumar, Valentina Pyatkin, <u>Faeze Brahman</u>, Noah A. Smith, Hannaneh Hajishirzi, Pradeep Dasigi. @ *Under submission*

RESTOR: Knowledge Recovery through Machine Unlearning

Keivan Rezaei, Khyathi Chandu, Soheil Feizi, Yejin Choi, Faeze Brahman, Abhilasha Ravichander. @ Under submission

TÜLU 3: Pushing Frontiers in Open Language Model Post-Training

Faeze Brahman*, Nathan Lambert*, Jacob Morrison*, Valentina Pyatkin*, Shengyi Huang*, Hamish Ivison*, and et al. @ arXiv

JOURNAL AND PEER-REVIEWED CONFERENCE PAPERS

Trust or Escalate: LLM Judges with Provable Guarantees for Human Agreement

Jaehun Jung, Faeze Brahman, and Yejin Choi. ICLR 2025

Al-LieDar: Examine the Trade-off Between Utility and Truthfulness in LLM Agents

Zhe Su, Xuhui Zhou, Sanketh Rangreji, Anubha Kabra, Julia Mendelsohn, Faeze Brahman, Maarten Sap. NAACL 2025

The Art of Saying No: Contextual Noncompliance in Language Models

Faeze Brahman*, Sachin Kumar*, Vidhisha Balachandran, Pradeep Dasigi, Valentina Pyatkin, Abhilasha Ravichander, Sarah Wiegreffe, Nouha Dziri, Khyathi Chandu, Jack Hessel, Yulia Tsvetkov, Noah A. Smith, Yejin Choi, and Hannaneh Hajishirzi. @ Neurips D&B Track

WildBench: Benchmarking LLMs with Challenging Tasks from Real Users in the Wild

Bill Yuchen Lin, Yuntian Deng, Khyathi Chandu, <u>Faeze Brahman</u>, Abhilasha Ravichander, Valentina Pyatkin, Ronan Le Bras, and Yejin Choi. *ICLR 2025*

WildTeaming at Scale: From In-the-Wild Jailbreaks to (Adversarially) Safer Language Models

Liwei Jiang, Kavel Rao+, Seungju Han+, Allyson Ettinger, <u>Faeze Brahman</u>, Sachin Kumar, Niloofar Mireshghallah, Ximing Lu, Maarten Sap, Nouha Dzir, and Yejin Choii. @ Neurips 2024

In Search of the Long-Tail: Systematic Generation of Long-Tail Inferential Knowledge via Logical Rule Guided Search

Huihan Li, Yuting Ning, Zeyi Liao, Siyuan Wang, Xiang Lorraine Li, Ximing Lu, Wenting Zhao, <u>Faeze Brahman</u>, Yejin Choi, Xiang Ren. @ EMNLP 2024

How to Train Your Fact Verifier: Knowledge Transfer with Multimodal Open Models

Jaeyoung Lee, Ximing Lu, Jack Hessel, Faeze Brahman, Youngjae Yu, Yonatan Bisk, Yejin Choi, Saadia Gabriel. @ Findings of EMNLP 2024

Agent Lumos: Unified and Modular Training for Open-Source Language Agents

Da Yin, Faeze Brahman, Abhilasha Ravichander, Khyathi Chandu, Kai-Wei Chang, Yejin Choi, and Bill Yuchen Lin. @ ACL 2024

Tailoring with Targeted Precision: Edit-Based Agents for Open-Domain Procedure Customization

Yash Kumar Lal, Li Zhang, Faeze Brahman, Bodhisattwa Prasad Majumder, Peter Clark, Niket Tandon. @ Findings of ACL 2024

MacGyver: Are Large Language Models Creative Problem Solvers?

Yufei Tian, Abhilasha Ravichander, Lianhui Qin, Ronan Le Bras, Raja Marjieh, Nanyun Peng, Yejin Choi, Thomas L. Griffiths, and <u>Faeze Brahman</u>. @ NAACL 2024

Information-Theoretic Distillation for Reference-less Summarization

Jaehun Jung, Ximing Lu, Liwei Jiang, <u>Faeze Brahman</u>, Peter West, Pang Wei Koh, and Yejin Choi. @ COLM 2024

PlaSma: Making Small Language Models Better Procedural Knowledge Models for (Counterfactual) Planning

Faeze Brahman, Chandra Bhagavatula, Valentina Pyatkin*, Jena D. Hwang*, Xiang Lorraine Li, Hirona J. Arai, Soumya Sanyal, Keisuke Sakaguchi, Xiang Ren, Yejin Choi. @ ICLR 2024

The Generative AI Paradox: "What It Can Create, It May Not Understand"

Faeze Brahman*, Peter West*, Ximing Lu*, Nouha Dziri*, Linjie Li*, Jena D. Hwang, Liwei Jiang, Jillian Fisher, Abhilasha Ravichander, Khyathi Chandu, Benjamin Newman, Pang Wei Koh, Allyson Ettinger, and Yejin Choi. @ ICLR 2024

Improving Language Models with Advantage-based Offline Policy Gradients

Ashutosh Baheti, Ximing Lu, Faeze Brahman, Ronan Le Bras, Maarten Sap, Mark Riedl. @ ICLR 2024

Impossible Distillation: from Low-Quality Model to High-Quality Dataset & Model for Summarization and Paraphrasing

Jaehun Jung, Peter West, Liwei Jiang, Faeze Brahman, Ximing Lu, Jillian Fisher, Taylor Sorensen, Yejin Choi. @ NAACL 2024

Creativity Support in the Age of Large Language Models: An Empirical Study Involving Emerging Writers

Tuhin Chakrabarty*, Vishakh Padmakumar*, *Faeze Brahman*, and Smaranda Muresan. @ *ACM Creativity & Cognition 2024*

SwiftSage: A Generative Agent with Fast and Slow Thinking for Complex Interactive Tasks

Bill Yuchen Lin, Yicheng Fu, Karina Yang, <u>Faeze Brahman</u>, Shiyu Huang, Chandra Bhagavatula, Prithviraj Ammanabrolu, Yejin Choi, Xiang Ren. @ NeurIPS 2023

Inference-Time Policy Adapters (IPA): Tailoring Extreme-Scale LMs without Fine-tuning

Ximing Lu, <u>Faeze Brahman</u>, Peter West, Jaehun Jang, Khyathi Chandu, Abhilasha Ravichander, Lianhui Qin, Prithviraj Ammanabrolu, Liwei Jiang, Sahana Ramnath, Nouha Dziri, Jillian Fisher, Bill Yuchen Lin, Skyler Hallinan, Xiang Ren, Sean Welleck, Yejin Choi. @ <u>EMNLP</u> 2023

What Makes it Ok to Set a Fire? Iterative Self-distillation of Contexts and Rationales for Disambiguating Defeasible Social and Moral Situations

Kavel Rao, Liwei Jiang, Valentina Pyatkin, Yuling Gu, Niket Tandon, Nouha Dziri, Faeze Brahman, and Yejin Choi. @ Findings of EMNLP 2023

STEER: Unified Style Transfer with Expert Reinforcement

Skyler Hallinan, Faeze Brahman, Ximing Lu, Jaehun Jung, Sean Welleck, and Yejin Choi. @ Findings of EMNLP 2023

Affective and Dynamic Beam Search for Story Generation

Tenghao Huang, Ehsan Qasemi, Bangzheng Li, He Wang, Faeze Brahman, Muhao Chen, and Snigdha Chaturvedi. @ Findings of EMNLP 2023

REV: Information-Theoretic Evaluation of Free-Text Rationales

Hanjie Chen, Faeze Brahman, Xiang Ren, Yangfeng Ji, Yejin Choi, Swabha Swayamdipta. @ ACL 2023

Generating Sequences by Learning to [Self-]Correct

Sean Welleck*, Ximing Lu*, <u>Faeze Brahman</u>+, Peter West+, Tianxiao Shen, Daniel Khashabi, Yejin Choi. @ ICLR 2023 *: co-first authors. + co-second authors

Maieutic Prompting: Logically Consistent Reasoning with Recursive Explanations

Jaehun Jung, Lianhui Qin, Sean Welleck, Faeze Brahman, Chandra Bhagavatula, Ronan Le Bras, Yejin Choi. @ EMNLP 2022

Grounded Keys-to-Text Generation: Towards Factual Open-Ended Generation

Faeze Brahman, Baolin Peng, Michel Galley, Sudha Rao, Bill Dolan, Snigdha Chaturvedi, Jianfeng Gao. @ Findings of EMNLP 2022

Towards Inter-character Relationship-driven Story Generation

Anvesh Rao Vijjini, Faeze Brahman, Snigdha Chaturvedi. @ EMNLP 2022

NarraSum: A Large-Scale Dataset for Abstractive Narrative Summarization

Chao Zhao, Faeze Brahman, Kaiqiang Song, Wenlin Yao, Dian Yu, Snigdha Chaturvedi. @ Findings of EMNLP 2022

Revisiting Generative Commonsense Reasoning: A Pre-Ordering Approach

Chao Zhao, Faeze Brahman, Tenghao Huang, Snigdha Chaturvedi. @ Findings of NAACL 2022

Reformulating Sentence Ordering as Conditional Text Generation

Somnath Basu Roy Chowdhury*, Faeze Brahman* and Snigdha Chaturvedi. @ EMNLP 2021

"Let Your Characters Tell Their Story": A Dataset for Character-Centric Narrative Understanding

Faeze Brahman, Meng Huang, Oyvind Tafjord, Chao Zhao, Mrinmaya Sachan, and Snigdha Chaturvedi. @ Findings of EMNLP 2021

ParsiNLU: A Suite of Language Understanding Challenges for Persian

Daniel Khashabi et al. @ TACL 2021

Uncovering Implicit Gender Bias in Narratives through Commonsense Inference

Tenghao Huang, <u>Faeze Brahman</u>, Vered Shwartz, and Snigdha Chaturvedi. @ Findings of EMNLP 2021

Learning to Rationalize for Nonmonotonic Reasoning with Distant Supervision

Faeze Brahman, Vered Shwartz, Rachel Rudinger, and Yejin Choi. @ AAAI 2021

Modeling Protagonist Emotions for Emotion-Aware Storytelling

<u>Faeze Brahman</u> and Snigdha Chaturvedi. <u>EMNLP 2020</u>

Cue Me In: Content-Inducing Approaches to Interactive Story Generation

<u>Faeze Brahman</u>, Alexandru Petrusca, and Snigdha Chaturvedi. @ AACL 2020

Effective Forum Curation Via Multi-task Learning

Faeze Brahman, Nikhil Varghase, Suma Bhat, and Snigdha Chaturvedi. @ EDM 2020

Electrical and Thermal Energy Management of a Residential Energy Hub, Integrating Demand Response and Energy Storage System

Faeze Brahman, Masoud Honarmand, and Shahram Jadid. Journal of Energy and Building, 2015

Development of a Thermal and Electrical Energy Management System in Residential Building Micro-Grid

Saeed Esmaeili, Behrooz Vahidi, Mehdi Parvizimosaed, Faeze Brahman. Journal of Renewable and Sustainable Energy, 2013

WORKSHOP

Towards Emotion-Aware Storytelling Using Reinforcement Learning

Faeze Brahman, and Snigdha Chaturvedi. Wordplay: When Language Meets Games Workshop @ NeurIPS 2020

Automatic Story Generation with Human-in-the-Loop

Faeze Brahman, Alexandru Petrusca, and Snigdha Chaturvedi. Workshop on Narrative Understanding (WNU) @ NAACL 2019

US PATENT

System and method for artificial intelligence story generation allowing content introduction

Snigdha Chaturvedi, Faeze Brahman, and Alexandru Petrusca. PUB NO: 20, 200, 311, 341, 2020

Selected Honors & Awards		
2024	Rising Star in Generative AI , University of Massachusetts, Amherst (Awarded to 9 people) — <unable attend="" to=""></unable>	
2021	Sabbatical Dissertation Fellowship, Jack Baskin School of Engineering, UC Santa Cruz	
2020	Grace Hopper Scholarship, Anita Borg Institute Tapia Celebration of Diversity Scholarship, CMDiT	
2019	Grace Hopper Scholar Scholarship, Anita Borg Institute Women's Club Scholarship, UC Santa Cruz Marilyn C. Davis Scholarship, UC Santa Cruz Second Best Poster Award, UCSC Data Science's Day CRA-W Travel Grant, ACM Computing Research Association	
2016	Regents Fellowship, UC Santa Cruz	
2012	Full Scholarship for graduate study, Iran University of Science and Technology	
2008	Full Scholarship for undergraduate study, Iran University of Science and Technology	
Teaching Experience		
ASSISTANT		
2020	CSE 115: Software Design Project, Teaching Assistant CSE 16: Discrete Mathematics, Teaching Assistant	UCSC
2010	Microsoft Displayers of the Color of Co	UCSC's
2019	ML and NLP [Summer Program for High School Scholars], Teaching Assistant	COSMOS Program
2018 2017	CSE 142: Machine Learning and Data Mining, Teaching Assistant TIM 50: Business Information Systems, Teaching Assistant	UCSC UCSC
GUEST L	ECTURES	
2023 2018 2018 2018	Language, Knowledge, and Reasoning, Graduate Advanced NLP Seminar Introduction to Neural Networks, Undergraduate ML course (Fall) Introduction to Neural Networks, Undergraduate ML course (Spring) Generative Adversarial Networks, graduate ML course (Fall)	UW UCSC UCSC UCSC

Invited Talks_

- May 2024. Creativity, Constrained Reasoning and Problem Solving., MilaNLP, Bocconi University.
- April 2024. Creativity, Constrained Reasoning and Problem Solving., UBC NLP Seminar.
- Mar 2023. Inference and Learning Frameworks for Consistent Language Reasoning and Generation., UMass NLP Seminars.
- Jan 2022. Modeling Key Narrative Elements for Automatic Story Generation, University of Southern California.
- Jan 2022. Modeling Key Narrative Elements for Automatic Story Generation, University of British Columbia.
- Nov 2020. Modeling Protagonist Emotions for Emotion-Aware Storytelling, EMNLP conference.
- Nov 2020. Cue Me In: Content-Inducing Approaches to Interactive Story Generation, AACL conference.
- Sep 2020. Weakly-Supervised Rationale Generation for Nonmonotonic Reasoning, Allen Institute for AI.
- Sep 2020. Automatic Story Generation via Modeling Key Narrative Elements, UC Santa Cruz, proposal.

Mentoring _____

(Met at least weekly during the course of project)

2024	Xuhui Zhou , Al2 Intern (co-mentor: Maarten Sap) \rightarrow submission to ICLR
2024	Keivan Rezaei, Al2 Intern (co-mentor: Abhilasha Ravichander) \rightarrow submission to NAACL
2023	Da Yin , Al2 Intern (co-mentor: Yuchen Lin) → <i>publication @ACL 2024</i>
2023	Yufei Tian, Al2 Intern (co-mentor: Ronan Le Bras) → publication @NAACL 2024

- Skyler Hallinan, Master Student, University of Washington → publication @ EMNLP
- 2023 Findings 2023
- 2022 Kavel Rao, Undergraduate, University of Washington (co-mentor: Liwei Jiang) \rightarrow publication @EMNLP Findings 2023
- 2022 **Hanji Chen**, Al2 Intern (co-mentor: Swabha Swayamdipta) \rightarrow publication @ACL 2023
- **Tengaho Huang**, Undergraduate, UNC Chapel Hill (co-mentor: Snigdha Chaturvedi) → publication @EMNLP Findings 2021, 2023
- 2020 Meng Huang, Master Student, University of Chicago (co-mentor: Mrinmaya Sachan) → publication at EMNLP Findings 2021

Service & Professional Activities

PROGRAM COMMITTEE & REVIEWING

2024	(Senior) Area Chair, NAACL, COLING, ACL Rolling Review (ARR)
2024	Program Committee , Neurips, ICLR, ACL Rolling Review (ARR)
2023	Program Committee, NeurIPS, ACL, EMNLP, ARR, NLRSE
2022	Program Committee, ARR, ACL, EMNLP
2021	Program Committee, ARR, AAAI, ACL, EMNLP, IJCAI

- 2020 **Program Committee**, AAAI, CoNLL, WNU
- 2019 **Program Committee**, CoNLL, WNU
- 2019 Student Volunteer, NAACL

WORKSHOP ORGANIZATION

- The 6th workshop on Narrative Understanding (WNU) @ EMNLP2024 https://bit.ly/wnu2024
- The first workshop on Creative AI across modalities @ AAAI2023 https://creativeai-ws.github.io

- The fifth workshop on Narrative Understanding (WNU) @ ACL2023

https://sites.google.com/umass.edu/wnu2023

- The fourth workshop on Narrative Understanding (WNU) @ NAACL2022

https://sites.google.com/view/wnu2022

Above 75 attendees

- The third workshop on Narrative Understanding, Storylines, and Events (WNU) @ NAACL2021 https://sites.google.com/view/wnu2021

DIVERSITY PROMOTING SERVICE

- Co-conceptualized and co-organized a Women-in-AI (WiAI) Group at UCSC, 2019.
- Mentoring at WiNLP workshop, NAACl 2022. (part of a mentorship and affinity support workshop)

References __

Yejin Choi (yejin@cs.washington.edu)

Brett Helsel Professor

Paul G. Allen School of Computer Science and Engineering, University of Washington

Snigdha Chaturvedi (snigdha@cs.unc.edu)

Associate Professor

Computer Science, UNC-Chapel Hill

Maarten Sap (maartensap@cmu.edu)

Assistant Professor

LTI, Carnegie Mellon University

Xiang Ren (xiangren@usc.edu)

Associate Professor

Computer Science, University of Southern California

Vered Shwartz (vered.shwartz@ubc.ca)

Assistant Professor

Computer Science, University of British Columbia