# Jana Thompson

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Skills	<ul> <li>Programming Languages: Python, Ruby, Java</li> <li>Natural Language Processing: spaCy, HuggingFace, NLTK, Stanford Core Parser, Word2Vec, MALLET, Snorkel, GloVe</li> <li>Machine Learning Libraries: scikit-learn, gensim, theano, TensorFlow, Keras, PyTorch</li> <li>Databases: Postgres, MySQL, MongoDB</li> <li>Data Visualization: Processing, ChartJS, Matplotlib, Seaborn, Plotly, D3</li> <li>Chatbot platforms: Rasa, Lex, Google DialogFlow</li> <li>UX methods: user research/design ethnography, product and service strategy, usability evaluation</li> <li>Design tools: Figma, Sketch, Adobe Photoshop/Illustrator</li> <li>Languages: English, German</li> </ul>
Work Experience	<ul> <li>Design Researcher, Siento.io</li> <li>Seattle, WA (remote) — 2024-present</li> <li>Creation of design strategy roadmap for startup</li> <li>Conducting ethnographic research with stakeholders</li> <li>Creation of design artifacts such as wireframes, prototypes, journey maps, user flows, and mindset diagrams</li> <li>Co-creation of product roadmap and prioritization based on research</li> </ul>
	<ul> <li>Adjunct Instructor, University of Iowa Tippie School of Business Iowa City, IA (remote) – 2024-present</li> <li>Instruction design for graduate student class in analytics</li> <li>Mentoring graduate students in applied business research</li> </ul> Language Engineer, Amazon Alexa Seattle, WA (remote) — 2022-2024 <ul> <li>Core involvement in LLM: development of metrics for supervised fine-turning, API design and review, development of quality standards for technical performance and design</li> <li>Redesign of workflow process for Alexa engineers</li> <li>Continuous improvement for Alexa features including metric</li> </ul>

development and improvement, data analysis into root causes of error, and voice design improvements for customer experiences

• Research study into voice perception and user experience on Alexa with design recommendations for TTS improvement

## **Data Science Consultant, IBM**

San Francisco, CA (remote) – 2020-22

- Strategy consultant for Data Science Community team
- Relaunch, redesign, and rebranding of the IBM Data Science in Practice blog on Medium
- UX research lead on community best practices

## Senior Data Designer, Fjord

San Francisco, CA — 2018-2019

- Collaborated on speculative design with emerging transportation technologies
- Led and designed complete overhaul of website, content, and marketing strategy for a corporate partnership
- Created data visualizations for multiple design research projects
- Conducted quantitative UX research for multiple clients
- Conceived and developed an AI design assistant
- Led data strategy for Fortune 500 client
- Collaborated on design research on health care mindsets

#### **R&D Technology Associate Principal, Accenture Labs**

San Francisco, CA — 2016-18

- Led team on design and development of AI regulatory tool for financial industry using knowledge graphs and React front-end
- Led team for prototype of tool for Canadian government monitoring of public sentiment on regulatory change
- Researched Question-Answering Seq2Seq model applications with MIT CSAIL researchers
- Led team for ML pipeline and front-end for service engineer assistance tool
- Recruited and led intern teams

#### **Natural Language Processing Engineer, Idibon**

San Francisco, CA — 2014-2016

- Built core models for sentiment analysis and NER in English, German, Spanish, French, and Mandarin
- Created custom natural language processing tools for clients for customer insight
- Led annotator teams and designed data labeling and annotation tasks and pipelines

- Co-designed and tested within larger team of Idibon Studio (our core software offering)
- Worked on core engineering tasks

### **Consultant, Trendquest.eu**

Hamburg, Germany (remote) — 2009-2014

- Researched business models to create market prediction models that were used by clients to optimize product marketing
- Created comparative reports showing demand for novel product features
- User research for international audiences for multiple media platforms
- Predicted future trends in business requirements and consumer expectation

#### Voice Search Researcher, TellMe Networks

Mountain View, CA -2009

- Speech recognition research on Bing Mobile
- Quantitative UX research for voice search applications
- Ontology creation for mobile search platform

#### **DevOps Engineer, Support Intelligence**

San Francisco, CA — 2008-09

- Maintained and deployed a server cluster with over 30+ servers
- Implemented Bloom filter for security risk detection
- Deployed systems in Debian, NexentaOS, OpenSolaris, Xen and VMWare
- Curated and maintained client relations

#### Ontologist, Cycorp, Inc.

Austin, TX — 2000-01

- Edited and completed development of the core cultural knowledge base axioms
- Co-created geographical and movement knowledge base
- Developed ontology for multiple cultural viewpoints in KB

Academic Research Experience

#### **Research Scientist, New York University**

New York City, NY (remote) — 2021-22

- Experimental design for QA dataset
- Technology lead for large crowdsourcing dataset projects
- Co-creator of first-in-class bias test set for QA models (BBQ-lite) submitted and accepted as part of the Big Bench dataset
- Co-researcher on project examining experience of speakers of Black English with voice and language technologies

### **Research Assistant, Document Krim and Bom Project**

Tei, Sierra Leone — 2007-08

- Developed linguistic ontology specific to field work in rural Sierra Leone
- Conducted linguistic ethnography in non-native language
- Conducted technical support and training for other linguists in the field

#### **Research Internship, The Linguist List, Eastern Michigan University**

Ypsilanti, MI — Summer 2007

- Collaborated on research and development of the Multitree Project
- Edited and expanded GOLD Ontology for markup of linguistic features
- Worked on linguistic training workshop development

## Graduate Research Assistant, Texas German Dialect Project, University of Texas at Austin

Austin, TX — 2002-05

- Conducted linguistic ethnography in rural Texas
- Led and trained annotation team of undergraduate and graduate students
- Developed and maintained servers and database systems
- Co-developed and designed website and interface for project
- Led quality control work for data entered permanently into archive

## Digital Media Consultant, Zwirner Corpus, University of Texas at Austin/Institüt für Deutsche Sprache

Austin, TX — 2004

- Strategized effort to digitize analog corpus from the 1950s
- Coordinated with international team to complete digitization in under three months

Teaching and Tutoring Experience

#### **Independent English Tutor**

Berlin, Germany — 2005-07

• Tutored students in English grammar, writing, and conversation

**Teaching Assistant, University of Texas at Austin** 

Austin, TX — 2005

- Lectured on the European folktale
- Led student sections
- Created rubrics and graded homework and exams

#### **Mathematics Tutor, The Griffin School**

Austin, TX — 2002

• Tutored high school students in algebra, geometry and precalculus

#### Mathematics Tutor, St. Edward's University

Austin, TX — 2001-02

- Specialized in tutoring of non-traditional students and first-infamily college students in mathematics and sciences
- Aided students with visual impairment

## Education Doctoral Candidate, Design, North Carolina State University

Raleigh, NC — 2022-present

• Coursework in design research and design as a professional practice

#### MPS, UX Design, Maryland Institute College of Art

Baltimore, MD — 2020-2021

- Coursework in UX design, prototyping, usability, and industry processes
- Thesis: (re)imagine: a VR prototype for reimagining the anthropocene

#### MA Germanic Studies, University of Texas at Austin

Austin, TX 2003-05

- Select coursework completed: computational linguistics, lexical semantics, syntax (minimalist program), foundations of humanities scholarship, archival research for the humanities
- Thesis: A Process-Based Approach to the Treatment of English-Language Past Participles in Texas German

#### **BS** Mathematics, University of Texas at Austin

Austin, TX — 2000-02

- Coursework in probability, analysis, algebra, and discrete mathematics
- Concentration: Pure Mathematics

	BA Anthropology, University of Texas at Austin Austin, TX — 1997-2000
	<ul> <li>Coursework in human evolution, ethnography, archaeology, and cultural studies/social theory</li> <li>Concentration: Asian-American Studies</li> </ul>
	General Studies, Austin Community College Austin, TX — 1996-97
	• General studies coursework in preparation for transfer to the University of Texas at Austin
Fellowships & Awards	Design Graduate Fellowship, North Carolina State University Raleigh, NC — 2022
	<ul> <li>Awarded to graduate student showing potential to expand the field of design studies</li> </ul>
	Finalist MICA Up/Start Accelerator Cohort Maryland Institute College of Art — present
	<ul> <li>Cohort fellowship to gain mentorship for product development for the project <i>Mira</i>, an AI-powered personal avatar and digital twin to help a user meet goals and improve their well-being</li> <li>Winners will be determined 12<sup>th</sup> April 2022</li> </ul>
	Design Fellow, Digital Society School Amsterdam University of Applied Sciences (deferred)
	• Current plan to investigate digital twins in Al
	Data Science Fellow, Zipfian Academy San Francisco, CA — Summer 2014
	<ul> <li>Implemented fraud detection algorithm using the Stanford Core Parser and Word2Vec, using fraud data aggregated by an event planning company.</li> <li>Relevant methods and approaches: natural language processing (NLP), A/B testing, supervised and unsupervised machine learning, frequentist and Bayesian statistical analysis</li> <li>Relevant technologies: Python, pandas, numpy/scipy, scikit-learn, Postgres</li> </ul>

## Berlin Graduate Fellowship, Freie Universität Berlin

Berlin, Germany — 2005-06

- Researched antifascist and Autonomen movement in Berlin from 1980 to 2005
- Conducted ethnographic fieldwork
- Attended courses in German cultural and intellectual history

## Helmut and June Rehder Graduate Scholarship, Department of Germanic Studies, University of Texas at Austin

Austin, TX — 2005

• Awarded annually to one graduate student who demonstrates academic excellence and outstanding service to the Germanic Studies department at UT Austin

## Civil Engineering Undergraduate Scholarship, School of Engineering, University of Texas at Austin

Austin, TX — 1997

• Awarded to two students in the Department of Civil Engineering at the University of Texas at Austin for academic excellence

#### Merit Scholarship, Austin Community College

Austin, TX — 1996

• Awarded to students who demonstrate academic excellence and community leadership

**Volunteer Experience** 

## **Ethical AI Assessment Lead, Responsible Innovation Project**

Palo Alto, CA (remote/contact) — 2020-present

- Assessing effectiveness of ethical AI frameworks
- Building a set of test datasets and metrics for ethical Al guidelines, frameworks, and libraries
- Work with Founders Circle to develop ethical strategies for variety of early stage companies

## **Executive Vice President, Chinese Immersion School at DeAvila PTA**

San Francisco, CA 2020

- Managed board logistics such as agenda setting, calling meetings, and other paperwork
- Development of strategy for learning support during distance learning

## **Board Member, Programming Strategy, and Researcher, FeministAl**

San Francisco/Los Angeles, CA 2018-2020

- Continuing development on the Cultural AI Design Tool
- Led AI development on Contextual Normalcy (AI/XR mental health project)
- Originated and developed "Ways of Knowing" series
- Original member of Board of Directors
- Led branding strategy and ideation for Encode and Ways of Knowing
- Ideated and development of Information as Storyteller installation in November 2019

## **Data and Statistics Chair, Cornerstone Doula Board of C.A.R.E**

Portland, OR/San Francisco/Oakland, CA 2018-19

- Researched evidence-based outcomes with doula care
- Developed survey and metrics for Cornerstone-educated doulas and their clients to track outcomes

#### **On-call Volunteer, ACCESS Women's Health Justice**

**Oakland, CA 2014-19** 

• Provided doula care, client advocacy, and assistance for people undergoing reproductive health care procedures

#### Practical support and social media chair, Bay Area Doula Project

San Francisco, CA 2012-2014

- Provided practical support to persons undergoing reproductive health procedures
- Organizing of events and training for volunteers
- Coordinated BADP's social media presence in advocating for reproductive justice

## Fundraising Lead, Volunteer Birth and Postpartum Doula, San Francisco General Hospital Volunteer Doulas

San Francisco, CA 2012-2013

- Provided support and advocacy for patients in labor and in first days of postpartum period
- Led the fundraising committee, organized events and community outreach in support
- Wrote copy for the communications team

#### Linux Lab Administrator, Linux Boxes for Schools

San Francisco, CA 2009-2010

- Installed and maintained Linux computers in several schools in San Francisco
- Worked on expanding program to new schools

#### **Coordinator, UT Linguistic Circle**

Austin, TX 2003-05

- Hosted bi-monthly speakers in linguistics
- Recruited local, national, and international speakers on topics in Classics, Computational Linguistics, Historical Linguistics, Phonetics, Phonology, Syntax, Semantics, Field Linguistics, and Language Archiving

## Facilities Coordinator, Inter-Cooperative Council at the University of Texas at Austin

Austin, TX 2004-2005

- Chaired the ICC Facilities Committee with responsibility for maintenance of nine houses
- Drafted annual Facilities Budget
- Handled member complaints with regards to physical maintenance
- Member of the ICC Executive Committee and the ICC Board of Directors.

#### Editor, Linguistics Research Center, University of Texas at Austin

Austin, TX 2002

• Edited digitization of Lehman's Gothic Dictionary

## Volunteer Coordinator and Practical Support, South Austin Caregivers

Austin, TX 1996

- Coordinated volunteers to assist to elderly clients with errands and practical support
- Provided practical support and assistance to elderly clients

Presentations, Performances, and Workshops

# *Changing Epistemologies in Climate Change Art,* Communicating Climate Change Hope

Vancouver, Canada, August 16th 2024

*A Protest Garden: Contested Space in an Urban Park in Seattle,* AMPS Urban Futures-Cultural Pasts

Barcelona, Spain, July 18th 2024

*The Posthuman Companion*, Invited Talk, Co-Exist Milan, Italy, May 16th 2024

*Can Alexa Have Common Sense?*, Alexa Conversational Design Summit 2024, Seattle, WA, April 20<sup>th</sup> 2024

*Trauma-Informed IA and AI Design: Building a Mental Health Application Informed by Clinical Definitions and Traumatic Exeperience,* IAC 2024, Seattle, WA, April 11<sup>th</sup> 2024 *Anthropocene Specters of the Salish Sea,* Local Cultures, Global Spaces Conference,

Virtual, December 8<sup>th</sup> 2023

**Beyond Human-Centered Design to Planet-Centered Design: A Systemic Ethical Approach to Sustainability in Al Creation, EurolA 2023** Amsterdam, Netherlands, September 22<sup>nd</sup>, 2023

*Generative AI in the VR Design Process.* Using AI in Freelancing Design Workshop Virtual, June 15<sup>th</sup> 2023

*SunLink* (VR Experience for Climate Change Education), AWE XR Climate Challenge Finalist, Santa Clara, CA, May 1<sup>st</sup> 2023

*Voice Perception and User Experience with Alexa,* Alexa Conversational Design Summit 2023, Seattle, WA, April 26<sup>th</sup> 2023

*Design Ethics for Sustainable AI,* IxDA 2023 Zürich, Switzerland, March 1<sup>st</sup>, 2023

*Durations in the Post-Anthropocene: Creating Sustainability With Ancient Futures,* Primer 2022 Virtual, September 24<sup>th</sup>, 2022

*Information as Storyteller* Aural AI Perforance at Z's Space, Seattle, WA,, September 23<sup>rd</sup>, 2022

*Beyond Human: Human Ecology and Post-Anthropocene AI,* Meeting of the Royal Anthropological Society 2022 Virtual, June 7<sup>th</sup> 2022

*Mira: Information Architecture in Intelligent Agents* Poster Presentation at the Information Architecture Conference, April 6<sup>th</sup>, 2022

*Ecosystemic AI Through Speculative Fiction*, Mozilla Fest 2022 Extended Workshop March 7th, 2022

*Get to Know Me: Creating Inclusive and Culturally-Competent Conversational Agents,* Automated Knowledge Base Construction (AKBC) 2021 Workshop on Conversational Agents and Structured Knowledge

Virual only, 7 October 2021

*Mental Models and Interpretability in AI Fairness Tools and Code Environments,* AI-HCI 2021 Workshop on Human-Centered Design Process for AI Applications Washington, DC (virtual), 27 July 2021

*Meaningless Gods and Posthuman Companions: Situated Meaning in the Future of AI,* Colloque IA fiction

CNRS-Université Paris 3=Sorbonne, Paris, France (virtual), 4 June 2021

*Community-Based Data Consent Workshop* NSF MetroLab Community Fellows Civic Innovation Challenge, 16 March 2021

*Embodied Ethnography: Posthuman and Community Approaches*, Vienna Anthropology Days 2020 University of Vienna, Vienna, Austria (virtual), 29 September 2020

*Encoding Ourselves*, Launch of 2020 Feminist.AI SF Project at Queerious Labs San Francisco, CA, 22 February 2020

*Cultural AI Design Toolkit Workshop*, IxDA Education Summit Milan, Italy, 2 February 2020

*Information as Storyteller*, Irrational Exhibits 11 Joint Installation in the Bendix Building, Los Angeles, CA, November 9<sup>th</sup>, 2019

*Contextual Normalcy,* Poster Presentation, Frontiers of AI in Health Care Symposium Stanford, CA, 18 September 2019

*Contextual Normalcy, MLUX x Reddit x Feminist.ai*, MLUX Meetup San Francisco, CA, 29 August 2019

*Contextual Normalcy*, SXSWi 2019 panelist Austin, TX, 12 March 2019

*Darkness in Demographic Data,* Knowing Data Workshop Los Angeles, CA, 14 July 2018

*The Human Factor,* Text Analytics West San Francisco, CA, 5 November 2015

*The Language of Fraud,* Zipfian Academy NLP Workshop San Francisco, CA, 18 August 2014

*Morpho-syntax in Texas German,* German Linguists Annual Conference UC Davis, Davis, CA, 9 May 2005

*Was hat gechanged? Code-switching in Texas German,* 41st Annual Meeting of the Chicago Linguistics Society University of Chicago, Chicago, IL, 21 April 2005

Lyrics That Kill: Metaphor and the Frame of KILL in Hip-Hop Lyrics, Rice

#### University 2005 Workshop on Language in Culture and Society

Rice University, Houston, TX, 24 October 2004

## *What's in a Name? The Etymology of Polydeukes,* 135th Meeting of the American Philological Society

San Francisco, CA, 5 January 2004

## *When Phonology Goes Haywire in Dying Languages,* 27th Annual Penn Linguistics Colloquium

University of Pennsylvania, Philadelphia, PA, February 2003

## Publications

Sole Author, 2024, AMPS Proceedings: Local Cultures, Global Spaces

## Meaningless Gods and Posthuman Companions: Situated Meaning in the Future of Al

Sole Author, Spring 2024, Belphéghor

Anthropocene Specters of the Salish Sea

#### **BBQ: A Hand-Built Bias Benchmark for Question Answering**

Primary Author: Alicia Parrish. Co-authored with Angelica Chen, Nikita Nangia, Vishakh Padmakumar, Jason Phang, Phu Mon Htut and Samuel Bowman: Proceedings of the Association for Computational Linguistics 2022

#### **QuALITY: Question Answering with Long Input Texts, Yes!**

Primary Author: Richard Yuanzhe Pang. Co-authored with Alicia Parrish, Nitish Joshi, Jason Phang, Angelica Chen, Vishakh Padmakumar, Johnny Ma, He He, and Samule Bowman: Proceedings of the North American Association for Computational Linguistics 2022

#### Mental Models and Interpretability in AI Fairness Tools and Code Environments

HCI International 2021 – Late Breaking Papers: Multimodality, eXtended Reality and Artificial Intelligence

# The Cultural AI Design Tool: Reimagining the Spectrum of the Artificial Intelligence Design Process

AI & Society, co-authored with Christine Meinders

#### Was hat gechanged: Language convergence in Texas German

Proceedings of the Chicago Linguistic Society, Volume 41, Number 2, January 2005, pp. 95-106(12)

## Towards determining the influence of internal and external factors on recent developments in Texas German phonology

University of Pennsylvania Working Papers in Linguistics, 2004, Volume 10(1), coauthored with Hans Boas, Karen Ewing, and Cheryl Moran

## **Blog Contributions**

## **Data Science in 2021**

IBM Data Science in Practice https://medium.com/ibm-data-ai/data-science-in-2021-c8b96c9e2fcd

## Gear Swap: Building an Inclusive Place to Shop and Socialize for Outdoor Gear Heads

co-authored with MacKenzie Legg and Kelly Lynch https://janathompson.medium.com/gear-swap-7a4d53bb1327

## Not Ready for the Runway: Heuristic Evaluation and Cognitive Walkthrough of RunwayML

https://janathompson.medium.com/not-ready-for-the-runway-e503bb328e5c

## Get to Know Me: Inclusion and Trust in Smart Home Speaker Environments co-created with Isabella Su and Ali Hosseini

https://janathompson.medium.com/get-to-know-me-391e13329501

#### **Centering the Data in Data Science**

IBM Data Science in Practice Part 1 Part 1

## Contribution to Designing for Pluralism: Takeaways on How to Create Human-Centered Spaces Online

New Public https://newpublic.substack.com/p/-designing-for-pluralism

#### **Research Summary: Designing For Human Rights in Al**

Montreal AI Ethics Blog https://montrealethics.ai/research-summary-designing-for-human-rights-in-ai/

# Research Summary: Laughing is Scary, but Farting is Cute: A Conceptual Model of Children's Perspectives of Creepy Technologies

Montreal AI Ethics Blog https://montrealethics.ai/research-summary-laughing-is-scary-but-farting-is-cutea-conceptual-model-of-childrens-perspectives-of-creepy-technologies/

## **Feminist Search Code Critique**

CCS Working Group 2020 blog, co-authored with Christine Meinders, Sarah Ciston, and Catherine Griffiths http://wq20.criticalcodestudies.com/index.php?p=/discussion/88/week-3-feminist-

http://wg20.criticalcodestudies.com/index.php?p=/discussion/88/week-3-feministsearch-code-critique

## **Participatory AI - How to Make Better AI**

	HEK Basel blog, co-authored with Christine Meinders
	https://share.hek.ch/en/participatory-ai-how-to-make-better-ai
	Rinse repeatstop? How to Judge When Models Are Good Enough
	ldibon blog https://web.archive.org/web/20160315042237/http://idibon.com/2015/12/
	Learning Analogies: The Most Interesting Side Effect of Deep Learning
	Idibon blog
	https://web.archive.org/web/20151017015837/http://idibon.com/learning- analogies-the-most-interesting-side-effect-of-deep-learning/
	It's Not Your Fault
	BADP blog http://bayareadoulaproject.org/its-not-your-fault/
	What Do You Do When Everyone Disappears?
	BADP blog
	http://bayareadoulaproject.org/what-do-you-do-when-everyone-disappears/
	We Will Not Yield: A Texan's Reflections on HB2, the Filibuster, and the Unruly
	Mob
	BADP blog <u>http://bayareadoulaproject.org/we-will-not-yield-a-texans-reflections-on-hb2-</u> <u>the-filibuster-and-the-unruly-mob/</u>
Certifications	Book Binding Core Certification, San Francisco Center for the Book January-October 2019
	Cornerstone Postpartum Doula Certification October 2012
	Bay Area Doula Project Abortion Doula Certification October 2012
	SFGH Birth Doula Certification May 2012
Datanta	System for time-efficient assignment of data to ontological classes
Patents	US 20190147297A1, issued16 May 2019
	Techniques for Combining Human and Machine Learning in Natural Language Processing
	US 20160162464A1, issued 9 June 2016