

# Vishakh Padmakumar

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## Education

2020– Present **PhD Student**, *Center for Data Science, New York University (NYU), NY, CGPA – 3.96/4.*  
**Advisor:** Dr. He He  
**Area:** NLP, Text Generation, Human Computer Interaction

2018–2020 **Masters in Computer Science**, *Courant Institute of Mathematical Sciences, New York University (NYU), NY, CGPA – 3.95/4.*

2014–2018 **Bachelors in Information Technology**, *National Institute of Technology (NIT) Karnataka, Surathkal, CGPA – 8.75/10.*

## Experience

### Publications

#### **Does Writing with Language Models Reduce Content Diversity?**, *Paper.*

**Vishakh Padmakumar**, He He  
*Under submission at ICLR 2023*

#### **Creativity Support in the Age of Large Language Models: An Empirical Study Involving Emerging Writers**, *Paper.*

Tuhin Chakrabarty\*, **Vishakh Padmakumar\***, Faeze Brahman, Smaranda Muresan  
*Under submission at CHI 2023*

#### **Testing the General Deductive Reasoning Capacity of Large Language Models Using OOD Examples**, *Paper.*

Abulhair Saparov, Richard Yuanzhe Pang, **Vishakh Padmakumar**, Nitish Joshi, Mehran Kazemi, Nadjoung Kim, He He  
*Neurips 2023*

#### **Extrapolative Controlled Sequence Generation via Iterative Refinement**, *Paper.*

**Vishakh Padmakumar**, Richard Pang, He He, Ankur Parikh  
*ICML 2023*

#### **Reward Gaming in Conditional Text Generation**, *Paper.*

Richard Yuanzhe Pang, **Vishakh Padmakumar**, Thibault Sellam, Ankur P Parikh, He He  
*ACL 2023*

#### **Investigating The Representation Of Open Domain Dialogue Context For Transformer Models**, *Paper.*

**Vishakh Padmakumar**, Behnam Hedayatnia, Di Jin, Patrick Lange, Seokhwan Kim, Nanyun Peng, Yang Liu, Dilek Hakkani-Tür  
*SIGDIAL 2023*

#### **Help me write a poem: Instruction Tuning as a Vehicle for Collaborative Poetry Writing**, *Paper.*

Tuhin Chakrabarty\*, **Vishakh Padmakumar\***, He He  
*EMNLP 2022*

#### **Machine-in-the-Loop Rewriting for Creative Image Captioning**, *Paper.*

**Vishakh Padmakumar**, He He  
*NAACL 2022*

## Exploring the Role of Task Transferability in Large-Scale Multi-Task Learning.

**Vishakh Padmakumar**, Leonard Lausen, Miguel Ballesteros, Sheng Zha, He He, George Karypis  
NAACL 2022

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

Richard Yuanzhe Pang\*, Alicia Parrish\*, Nitish Joshi\*, Nikita Nangia, Jason Phang, Angelica Chen,  
**Vishakh Padmakumar**, Johnny Ma, Jana Thompson, He He and Sam Bowman.  
NAACL 2022

## BBQ: A Hand-Built Bias Benchmark for Question Answering, Paper.

Alicia Parrish, Angelica Chen, Nikita Nangia, **Vishakh Padmakumar**, Jason Phang, Jana Thompson,  
Phu Mon Htut, Samuel R. Bowman  
ACL Findings 2022

## Unsupervised Extractive Summarization using Pointwise Mutual Information, Paper.

**Vishakh Padmakumar**, He He  
EACL 2021

## A comparison of methods in political science text classification: Transfer learning language models for politics, Paper.

Zhanna Terechshenko, Fridolin Linder, **Vishakh Padmakumar**, Michael Liu, Jonathan Nagler, Josh Tucker, Richard Bonneau  
SSRN

## Positions Held

May-Oct 2022 **Applied Scientist Intern, Amazon Alexa AI**, Sunnyvale, CA.

o Mentor(s): Yang Liu, Dilek Hakkani-Tur

May-Oct 2021 **Applied Scientist Intern, Amazon Web Services**, New York, NY.

o Mentor(s): Leonard Lausen, Miguel Ballesteros, George Karypis

May-Aug 2019 **Machine Learning Intern, Laer.AI**, New York, NY.

o Mentor(s): Igor Labutov, Bishan Yang

Oct 2018 - **Graduate Research Associate, Center for Social Media and Politics, NYU**.

May 2020 o Mentor(s): Richard Bonneau, Fridolin Linder, Zhanna Terechshenko

May-Jul 2017 **Software Development Intern, Microsoft - IDC**, Bangalore.

o Mentor(s): Vageesh Banga, Darshan Jawalebhoi - Dynamics 365 Team

## Professional Service

2022-23 Chair of the ACL 2023 Student Research Workshop

2021- Student Coordinator of the NYU NLP/Text-as-Data Speaker Series

2021- Reviewer for ACL Rolling Review, ACL 2023, EMNLP 2023, Workshop on Narrative Understanding 2023, In2Writing 2023, ME-FoMo 2023

2017-18 Convenor of the Association for Computing Machinery (ACM) - NITK Chapter

2017 Co-founded the Mozilla Campus Club at NITK to foster open source contributions.

## Achievements

2022 Received the CDS Best Teaching Assistant award for the Spring 22 semester

2020-25 Received the NYU Data Science Fellowship

2020 Received the NYU Data Science Supplementary Fellowship Grant

2019 Semi-Finalist in the NYU Threesis Academic Challenge

2012-2018 Awarded the National Talent Search Scholarship by NCERT. Government of India

## Open Source Contributions

### **SMaBERTa, Code.**

- Wrapper package for the HuggingFace Transformers library used by political scientists at the Center for Social Media and Politics for text classification.

### **Multiscale Multifractal Time Series Analysis, Code.**

- Created and maintained the TSeriesMMA R package on the CRAN Project

## **Other Selected Projects**

### **Multi-Modal Content Similarities in Online Disinformation Campaigns, Ext. Abstract.**

Cody Buntain, **Vishakh Padmakumar**, Richard Bonneau, Jonathan Nagler, Josh Tucker  
ACM Conference on Collective Intelligence, June, 2020.

### **Counterfactual Logit Pairing with Asymmetric Counterfactuals, Paper.**

**Vishakh Padmakumar**, Lucius Bynum

### **Transfer of Reinforcement Learning in a Natural Language Action Space, Paper.**

**Vishakh Padmakumar**, Francesco Preta

### **A Robust Approach to Open Vocabulary Image Retrieval with Deep Convolutional Neural Networks and Transfer Learning , Paper.**

**Vishakh Padmakumar**, Rishab Ranga, Srivalya Elluru, Sowmya Kamath S  
2018 Pacific Neighborhood Consortium Annual Conference and Joint Meetings (PNC). IEEE, 2018.