# Arjun Subramonian (they/them)

Computer Science Department
University of California, Los Angeles
Core Organizer, Queer in AI

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Publications: Semantic Scholar, Google Scholar
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## Research Interests

graph machine learning, natural language processing, fairness, justice, ethics

## Education

**PhD in Computer Science; University of California, Los Angeles** (2021-Present), GPA: 3.940
NSF MENTOR Fellow, Eugene V. Cota-Robles Fellow
*Advisors:* Yizhou Sun, Kai-Wei Chang

**BS in Computer Science; University of California, Los Angeles** (2018-2021), GPA: 3.927
Summa Cum Laude

## Work Experience

Research Intern; Meta Society and Responsible AI (2024)
Research Intern; Meta Society and Responsible AI (2022)
Research Intern; Microsoft Research FATE (2022)
Privacy Research Intern; Snap, Inc. (2021)
AllenNLP Research Engineering Intern; Allen Institute for Artificial Intelligence (2021)
Software Engineering Intern; Microsoft Corporation (2020)
Software Engineering Intern; Get Heal, Inc. (2019)

## Conference Papers, Journal Papers, and Book Chapters

**Networked Inequality: Preferential Attachment Bias in Graph Neural Network Link Prediction**
**Arjun Subramonian**, Levent Sagun, Yizhou Sun
ICML 2024 (27.5% acceptance rate)

**Evaluating the Social Impact of Generative AI Systems in Systems and Society**
Irene Solaiman*, Zeerak Talat*, …, **Arjun Subramonian**
Oxford University Press Handbook on Generative AI

**Motif-Driven Contrastive Learning of Graph Representations**, *URL*
Shichang Zhang, Ziniu Hu, **Arjun Subramonian**, Yizhou Sun
Transactions on Knowledge and Data Engineering

**Factoring the Matrix of Domination: A Critical Review and Reimagination of Intersectionality in AI Fairness**, *URL*
Anaelia Ovalle, **Arjun Subramonian**, Vagrant Gautam, Gilbert Gee, Kai-Wei Chang
AIES 2023 (28.9% acceptance rate) Oral (7.7% acceptance rate)

**Bound by the Bounty: Collaboratively Shaping Evaluation Frameworks for Queer AI Harms**, *URL*
Organizers Of QueerInAI, …, **Arjun Subramonian**, …, Jess de Jesus de Pinho Pinhal
AIES 2023 (28.9% acceptance rate)

**It Takes Two to Tango: Navigating Conceptualizations of NLP Tasks and Measurements of Performance**, *URL*
**Arjun Subramonian**, Xingdi Yuan, Hal Daumé III, Su Lin Blodgett
Findings of ACL 2023 (41.89% acceptance rate)

<span style="color:red">[Best Paper]</span> **Queer In AI: A Case Study in Community-Led Participatory AI**, *URL*
Organizers of QueerInAI, …, **Arjun Subramonian**, …, Luke Stark
FAccT 2023 (24.5% acceptance rate)

**On the Discrimination Risk of Mean Aggregation Feature Imputation in Graphs**, *URL*
**Arjun Subramonian**, Kai-Wei Chang, Yizhou Sun
NeurIPS 2022 (25.6% acceptance rate)

**Queer in AI**, *URL*
Organizers of QueerInAI, …, **Arjun Subramonian***, …, Jeffrey Xiong*
XRDS: Crossroads, The ACM Magazine for Students, Volume 28, Issue 4

**On Dyadic Fairness: Exploring and Mitigating Bias in Graph Connections**, *URL*
**Arjun Subramonian**
ICLR 2022 Blogpost Track (32% acceptance rate)

**Harms of Gender Exclusivity and Challenges in Non-Binary Representation in Language Technologies**, *URL*
Sunipa Dev, Masoud Monajatipoor*, Anaelia Ovalle*, **Arjun Subramonian***, Jeff M Phillips, Kai-Wei Chang
EMNLP 2021 (25.6% acceptance rate) Oral (9.8% acceptance rate), WiML Un-Workshop @ NeurIPS 2021

**MOTIF-Driven Contrastive Learning of Graph Representations**, *URL*
**Arjun Subramonian**
AAAI 2021 Undergraduate Consortium (17% acceptance rate)

**Automated, Cost-Effective Optical System for Accelerated Antimicrobial Susceptibility Testing (AST) Using Deep Learning**, *URL*
Calvin Brown, …, **Arjun Subramonian**, …, Aydogan Ozcan
ACS Photonics

**Estimating the Ages of FGK Dwarf Stars Through the Use of GALEX FUV Magnitudes**, *URL*
Sara Crandall, Graeme H. Smith, **Arjun Subramonian**, Kelly Ho, Evelyn M. Cochrane
The Astronomical Journal

## Workshop Papers

**Networked Inequality: Preferential Attachment Bias in Graph Neural Network Link Prediction**, *URL*
**Arjun Subramonian**, Levent Sagun, Yizhou Sun
GLFrontiers @ NeurIPS 2023 Oral (15.4% acceptance rate)

**Prompting Multilingual Large Language Models to Generate Code-Mixed Texts: The Case of South East Asian Languages**, *URL*
Zheng-Xin Yong, …, **Arjun Subramonian**, …, Alham Fikri Aji
CALCS @ EMNLP 2023

**Critical Technopolicy and Reflexivity For Proactive Gender-Inclusive NLP**
Davi Liang, Anaelia Ovalle, **Arjun Subramonian**, Alicia Boyd
Queer in AI @ ACL 2023

**Group Excess Risk Bound of Overparameterized Linear Regression with Constant-Stepsize SGD**, *URL*
**Arjun Subramonian**, Levent Sagun, Kai-Wei Chang, Yizhou Sun
Trustworthy and Socially Responsible Machine Learning @ NeurIPS 2022

**You Reap What You Sow: On the Challenges of Bias Evaluation Under Multilingual Settings**, *URL*
Zeerak Talat, …, **Arjun Subramonian***, …, Oskar van der Wal*
Challenges & Perspectives in Creating Large Language Models @ ACL 2022

**How to Make Virtual Conferences Queer-Friendly: A Guide**, *URL*
Organizers of QueerInAI, …, **Arjun Subramonian**, …, Nyx McLean
Widening NLP @ EMNLP 2021

**Motif-Driven Contrastive Learning of Graph Representations**, *arXiv*
Shichang Zhang, Ziniu Hu, **Arjun Subramonian**, Yizhou Sun
Self-Supervised Learning @ WWW 2021

**Queer | Inclusive | Badass**, *URL*
**Arjun Subramonian**
Resistance AI @ NeurIPS 2020

# Preprints

**Stop! In the Name of Flaws:**
**Disentangling Personal Names and Sociodemographic Attributes in NLP**, *in submission*, *arXiv*
Vagrant Gautam, **Arjun Subramonian**, Anne Lauscher, Os Keyes

**Understanding "Democratization" in NLP Research**, *in submission*, *arXiv*
**Arjun Subramonian***, Vagrant Gautam*, Dietrich Klakow, Zeerak Talat

**Theoretical and Empirical Insights into the Origins of Degree Bias in Graph Neural Networks**, *in submission*, *arXiv*
**Arjun Subramonian**, Jian Kang, Yizhou Sun

**Survey of Bias In Text-to-Image Generation: Definition, Evaluation, and Mitigation**, *in submission*, *arXiv*
Yixin Wan, **Arjun Subramonian**, …, Kai-Wei Chang

**Weisfeiler and Leman Go Measurement Modeling: Probing the Validity of the WL Test**, *in submission*, *arXiv*
**Arjun Subramonian**, Adina Williams, Maximilian Nickel, Yizhou Sun, Levent Sagun

**BLOOM: A 176B-Parameter Open-Access Multilingual Language Model**, *in submission*, *arXiv*
Teven Le Scao, …, **Arjun Subramonian**, …, Thomas Wolf

**Selecting Core Subgraphs for Efficient Graph Neural Network Training**, *URL*
**Arjun Subramonian***, Harsh Chobisa*

**Twitter Saliency Algorithm: Identifying Unintentional Harms to Gender Non-Conforming Individuals**, *URL*
**Arjun Subramonian***, Michael McKenna*

**Fairness and Bias Mitigation: A practical guide into the AllenNLP Fairness module**, *URL*
**Arjun Subramonian**

## Invited Talks

2024 - Queer In AI: A Case Study in Community-Led Participatory AI, Data & Society; *Slides*

2023 - Bias, Discrimination, and Power: Graphs and Natural Language, KUNGFU.AI; *Slides*

2023 - Bias and Power in NLP, USC ISI Natural Language Seminar; *Event*, *Slides*, *Video*

2022 - Bias and Power in NLP (for future consultants), Paris; *Slides*

2022 - Bias and Power in NLP, NLP Seminars at Dublin College University; *Slides*

2022 - Guest Lecture: Bias in Natural Language Processing, COM SCI 263: NLP, UCLA; *Slides*, *Video*

2022 - Queer in AI: Making AI Queer-Inclusive and Prioritizing Grassroots D&I Activism,
Humlab, Umeå University; *Slides*, *Video*

2022 - Prioritizing Grassroots D&I Activism: Queer in AI,
AAAI Workshop on Diversity in Artificial Intelligence; *Event*, *Slides*

2022 - Prioritizing Grassroots D&I Activism: Queer in AI, Nike Sport+AI Conference; *Event*, *Slides*

2021 - How Can I Make My Hackathon Queer-Inclusive?, Hackcon IX; *Slides*, *Video*

2019 - An Automated and Cost-Effective System for Early Antimicrobial Susceptibility Testing
Using Optical Fibers and Deep Learning, UCLA HHMI Day; *Slides*

## Invited Panels

2024 - Artificial Intelligence and Democratic Values Roundtable, Center for AI & Digital Policy; *Event*

2024 - UCLA Computer Science PhD Visit Day Panel

2024 - UCLA ACM AI Outreach GALA Panel

2024 - Queer Computation: A Critical Unmaking, Coding Inquiry, McMaster

2024 - AI in the Time of Generative Models: Ensuring that Diverse Voices Are Heard,
AAAI Workshop on Diversity in AI; *Event*

2023 - Students with Disabilities Panel, UCLA

2023 - US AI Policy: Next Steps

2023 - Queer in AI National AI Advisory Committee Briefing; *Event*, *Briefing*, *Video*, *Press*, *Findings*

2023 - Partnership on AI Inclusive Data Collection Workshop

2023 - Data & Society Salon Series on Responsible AI in Government

2022 - Students with Disabilities Panel, UCLA

2022 - Accessibility and Inclusion Panel, Neuromatch Academy; *Video*

2022 - Gender as a Variable in NLP, NAACL Queer in AI Workshop; *Event*, *Video*

2022 - NYU Center for Responsible AI Roundtable on Accessible AI Education

2022 - Co-Opting AI: Queer, NYU's Institute for Public Knowledge; *Event*, *Video*

2022 - How Do We Improve DEI in AI?, Nike Sport+AI Conference

2021 - Eye on A.I.: Equity & Inclusion in A.I. Technology, Toronto Public Library; *Video*

2021 - Intersectionality Panel, NAACL; *Video*

## Honors

2023 - LoG Conference Top-10 Reviewer

2023 - FAccT Best Paper Award; *Site*

2022 - NSF MENTOR Fellowship

2021 - Allen AI Outstanding Intern of the Year; *Site*

2021 - Major League Hacking Top 50; *Site*

2021 - UCLA Samueli School-Wide Outstanding Bachelor of Science; *Site*

2021 - UCLA Chancellor's Service Award; *Site*

2021 - UCLA Samueli Engineering Achievement Award in Student Welfare; *Site*

2021 - UCLA Eugene V. Cota-Robles Fellowship

2021 - Boeing Company Scholarship

2021 - Brian J. Lewis Endowment
2018-2021 - UCLA Dean's Honors List
2020 - Computing Research Association Outstanding Undergraduate Researcher Honorable Mention; *Site*
2020 - IBM Quantum Challenge
2019 - 3rd Place Award for Best Hack @ Rose Hack, Major League Hacking
2017 - Siemens Competition Regional Finalist; *Site*
2016 - Award of Achievement, Association for Computing Machinery, San Francisco Bay Area Professional Chapter

## Service

- **Reviewing:**

    - **Conferences:**
        * NeurIPS (2024, D&B 2024, Ethics 2024, 2023, D&B 2023, Ethics 2023)
        * FAccT (2024, 2023, 2022)
        * LoG (2024, 2023, 2022)
        * KDD (2024, 2023)
        * ACL (Ethics 2024)
        * WebConf (2024)
    - **Workshops:**
        * NeurIPS (GLFrontiers 2023, GLFrontiers 2022, TSRML 2022)
        * NAACL (TrustNLP 2022, WOAH 2022, SRW 2022)
        * ACL (TrustNLP 2023, WOAH 2023, Queer in AI 2023, BigScience 2022)

- **Conference organization:**

    - LoG Outreach Chair (2025)
    - FAccT Socials Chair (2024, 2025)
    - NeurIPS Affinity Workshops Chair (2022, 2023)
    - KDD EDI Day Chair (2023)
    - NAACL Accessibility Chair (2022)

- **Workshop and social organization:**

    - In Código of Hope: Possibilities of Global Solidarity and Activism in Academic Environments @ FAccT 2024
    - Global AI Cultures @ ICLR 2024
    - Collaboratively Developing Evaluation Frameworks for Queer AI Harms @ FAccT 2022
    - **Queer in AI:**
        * ICML (2024, 2022, 2021)
        * NeurIPS (2021)
        * ICLR (2024)
        * AAAI (2021)
        * NAACL (2022)
        * ACL (2023)

- **Policy:**

    - NIST AI Safety Institute Consortium
    - FINDINGS: Exploring the Impact of AI

- **Equity, Diversity, & Inclusion (EDI):**

  - Queer in AI core organizer
  - Guides on Publication Accessibility, Quality, and Inclusivity and Poster and Talk Accessibility, Quality, and Inclusivity
  - UCLA Samueli Standing Committee on Diversity member
  - AllenNLP Hacks organizer
  - QWER Hacks co-founder, organizer, panelist, and judge
  - ACM at UCLA EDI director
  - ACM AI at UCLA outreach director
  - "You Belong in AI!" podcast creator and producer

- **Teaching:**

  - **UCLA:** Computer Science 32 (2023), Computer Science Summer Institute (2022, 2023)
  - **North Hollywood High School:** Intro to Machine Learning
  - **EDI:** Guide on Gender and Pronouns for Instructors

## Mentoring

I am fortunate to mentor brilliant students:

- Margaret Capetz
- Naisha Agarwal

## References

Yizhou Sun (yzsun@cs.ucla.edu)
Kai-Wei Chang (kwchang@cs.ucla.edu)
Levent Sagun (leventsagun@meta.com)