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
GitHub: github.com/ArjunSubramonian

Research Interests

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

Education

PhD in Computer Science; University of California, Los Angeles (2021-Present), GPA: 3.933
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 (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 and Journal Papers

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

Bound to the Bounty: Collaboratively Developing Evaluation Frameworks for Queer AI Harms
Organizers Of QueerInAI, Nathan Dennler, Anaelia Ovalle, Ashwin Singh, Luca Soldaini, **Arjun Subramonian**, Huy Tu, William Agnew, Avijit Ghosh, Kyra Yee, Irene Font Peradejordi, Zeerak Talat, Mayra Russo, 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, *arXiv*
Arjun Subramonian, Xingdi Yuan, Hal Daumé III, Su Lin Blodgett
Findings of ACL 2023

[Best Paper] **Queer In AI: A Case Study in Community-Led Participatory AI**, *URL*
Organizers of QueerInAI, Anaelia Ovalle, **Arjun Subramonian**, …
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, Hetvi Jethwani*, **Arjun Subramonian***, William Agnew*, MaryLena Bleile*, Sarthak Arora*, Maria Ryskina*, 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 Oral (9.8% acceptance rate), WiML Un-Workshop @ NeurIPS 2021.

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

Automated, Cost-Effective Optical System for Accelerated Antimicrobial Susceptibility Testing (AST) Using Deep Learning, *URL*
Calvin Brown, Derek Tseng, Paige M. K. Larkin, Susan Realegeno, Leanne Mortimer, **Arjun Subramonian**, Dino Di Carlo, Omai B. Garner, 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
Astronomical Journal

Workshop Papers

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, Aurélie Névéol, Stella Biderman*, Miruna Clinciu*, Manan Dey*, Shayne Longpre*, Alexandra Sasha Luccioni*, Maraim Masoud*, Margaret Mitchell*, Dragomir Radev*, Shanya Sharma*, **Arjun Subramonian***, Jaesung Tae*, Samson Tan*, Deepak Tunuguntla*, 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, A Pranav, MaryLena Bleile, **Arjun Subramonian**, Luca Soldaini, Danica Sutherland, Sabine Weber, Pan Xu, William Agnew, Michael McKenna, 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 Workshop @ NeurIPS 2020

Preprints

Weisfeiler and Lehman Go Measurement Modeling: Probing the Validity of the WL Test
Arjun Subramonian, Adina Williams, Maximilian Nickel, Yizhou Sun, Levent Sagun

BLOOM: A 176B-Parameter Open-Access Multilingual Language Model, *arXiv*
Teven Le Scao, Angela Fan, Christopher Akiki, ..., **Arjun Subramonian**, ..., Yacine Jernite, Younes Belkada, Thomas Wolf

Explaining Attention-Based Graph Neural Networks Post-Hoc With Attention Flows, *URL*
Paymon Haddad*, **Arjun Subramonian***, Brian Tagle*

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

Robust Model-Agnostic Meta-Learning for Binary Content Moderation Tasks in Natural Language Processing, *URL*
Arjun Subramonian*, John Arthur Dang*

Invited Talks

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

2023 - Queer in AI National AI Advisory Committee Briefing; *Event*, *Briefing*, *Press*
2023 - Partnership on AI Inclusive Data Collection Workshop
2023 - Data & Society Salon Series on Responsible AI in Government

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 - FAccT Best Paper Award; *Site*
2022 - NSF MENTOR Fellowship
2021 - AI2 Outstanding Intern of the Year; *Site*
2021 - MLH 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 Datasets & Benchmarks Track 2023, NeurIPS 2023, KDD 2023, FAccT 2023, LoG 2022, FAccT 2022

    - **Workshops:** Queer in AI @ ACL 2023, WOAH @ ACL 2023, TrustNLP @ ACL 2023, GLFrontiers @ NeurIPS 2022, TSRML @ NeurIPS 2022, TrustNLP @ NAACL 2022, SRW @ NAACL 2022, WOAH @ NAACL 2022, BigScience @ ACL 2022

- **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

- **Conference organization:**

    - NeurIPS Affinity Workshops Chair (2022, 2023)

    - KDD EDI Day Chair (2023)

    - NAACL Accessibility Chair (2022)

- **Workshop organization:**

    - **Queer in AI:** AAAI 2021, ICML 2021, NeurIPS 2021, FAccT 2022, NAACL 2022, ICML 2022, ACL 2023

- Collaboratively Developing Evaluation Frameworks for Queer AI Harms @ FAccT 2022

- **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 and organizer
  - ACM at UCLA EDI director
  - ACM AI at UCLA outreach director
  - "You Belong in AI!" podcast creator and producer

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`)