Arjun Subramonian (they/them)

Computer Science Department University of California, Los Angeles Core Organizer, Queer in AI Email: arjunsub@cs.ucla.edu Website: arjunsubramonian.github.io Publications: Semantic Scholar, Google Scholar GitHub: github.com/ArjunSubramonian

Research Interests

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

Education

РнD 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

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)

[Best Paper] 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 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, ..., 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 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 Workshop @ NeurIPS 2020

Preprints

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

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

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

BLOOM: A 176B-Parameter Open-Access Multilingual Language Model, *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 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: ACL Ethics 2024, FAccT 2024, WebConf 2024, LoG 2023, NeurIPS Ethics 2023, NeurIPS Datasets & Benchmarks Track 2023, NeurIPS 2023, KDD 2023, FAccT 2023, LoG 2022, FAccT 2022
 - Workshops: GLFrontiers @ NeurIPS 2023, 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
- 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 organization:
 - In Código of Hope: Possibilities of Global Solidarity and Activism in Academic Environments @ FAccT 2024
 - Global AI Cultures @ ICLR 2024
 - 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
- 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)