# Gabriel Lima

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#### RESEARCH INTERESTS

My research interests reside at the intersection of human-computer interaction (HCI) and responsible artificial intelligence (AI). More concretely, I am interested in understanding laypeople's perceptions of AI systems and their impacts on society. Through my research, I intend to examine how AI can rectify social injustices instead of perpetuate them.

I am now investigating how different ways of framing algorithmic harms can shape the public perception of decision-making algorithms. I am interested in how some of the ideologies shaping AI research, e.g., that algorithms are value-neutral, can form laypeople's understanding of algorithms deployed in high-risk domains. My primary objective is to influence AI development and regulation, ensuring that they are aligned with the opinions of marginalized groups.

During my BS and MS, I investigated people's perceptions of moral and legal responsibility for algorithmic decision-making. My research focused on capturing whom people consider responsible when AI causes harm to embed laypeople's opinions in normative research and policymaking to mitigate any potential conflicts between folk expectations and AI governance.

#### **EDUCATION**

#### Max Planck Institute for Security and Privacy (MPI-SP)

Bochum, Germany, Sep. 2023 - Present

Ph.D. in Computer Science. Advisor: Yixin Zou.

#### Korea Advanced Institute of Science and Technology (KAIST)

Daejeon, South Korea, Mar. 2021 - Feb. 2023

M.S. in Computer Science. Advisor: Meeyoung Cha.

Thesis: The Conflict Between Explainability and Responsibility in Algorithmic Decision-Making

#### Korea Advanced Institute of Science and Technology (KAIST)

Daejeon, South Korea, Feb. 2017 - Feb. 2021

Advanced B.S. in Computer Science (with honors).

#### **SELECTED PUBLICATIONS**

**Gabriel Lima**, Nina Grgić-Hlača, Markus Langer, Yixin Zou. "Lay Perceptions of Algorithmic Discrimination in the Context of Systemic Injustice." *To Appear in the Proceedings of the CHI Conference on Human Factors in Computing Systems*. 2025.

**Gabriel Lima**, Nina Grgić-Hlača, Elissa Redmiles. "Public Opinions About Copyright for Al-Generated Art: The Role of Egocentricity, Competition, and Experience." *To Appear in the Proceedings of the CHI Conference on Human Factors in Computing Systems*. 2025.

**Gabriel Lima**, Nina Grgić-Hlača, Jin Keun Jeong, Meeyoung Cha. "Who Should Pay When Machines Cause Harm? Laypeople's Expectations of Legal Damages for Machine-Caused Harm." *Proceedings of the 2023 Conference on Fairness, Accountability, and Transparency (FAccT)*. 2023. https://doi.org/10.1145/3593013.3593992

**Gabriel Lima**, Nina Grgić-Hlača, Meeyoung Cha. "Blaming Humans and Machines: What Shapes People's Reactions to Algorithmic Harm." *Proceedings of the CHI Conference on Human Factors in Computing Systems*. 2023. https://doi.org/10.1145/3544548.3580953

**Gabriel Lima**, Nina Grgić-Hlača, Jin Keun Jeong, Meeyoung Cha. "The Conflict Between Explainable and Accountable Decision-Making Algorithms." *Proceedings of the 2022 Conference on Fairness, Accountability, and Transparency (FAccT)*. 2022.

https://doi.org/10.1145/3531146.3534628

**Gabriel Lima**, Nina Grgić-Hlača, Meeyoung Cha. "Human Perceptions on Moral Responsibility of AI: A Case Study in AI-Assisted Bail Decision-Making." *Proceedings of the CHI Conference on Human Factors in Computing* 

#### Honors and Awards

## KAIST School of Computing Outstanding Thesis Award

2023

Received for my M.S. thesis titled "The Conflict Between Explainability and Responsibility in Algorithmic Decision-Making."

#### SIGCHI Gary Marsden Travel Award

2023

Received USD 2,500 to attend ACM CHI 2023 and present my paper titled "Blaming Humans and Machines: What Shapes People's Reactions to Algorithmic Harm."

# **Best Student Paper Award**

2022

Received at the "Issues in XAI #4: Explainable AI: between ethics and epistemology" workshop for the paper titled "The Conflict Between Explainable and Accountable Decision-Making Algorithms."

#### **ACM EAAMO New Horizons Award**

2022

Received at the ACM Conference on Equity and Access in Algorithms, Mechanisms, and Optimization (EAAMO'22) for the paper titled "Dimensions of Diversity in Human Perceptions of Algorithmic Fairness." The New Horizons Award is given to papers "bridging research and practice that EAAMO aspires to foster."

## KAIST School of Humanities and Social Sciences Best Paper Award

Spring Semester, 2020

Received for the paper titled "How Granting Rights to AI and Robots Might Conflict with Human Rights."

#### KAIST School of Computing Dean's List

Fall Semester, 2018

Received for outstanding academic achievement.

## KAIST Graduate/Undergraduate Research Project (GURP) Funding

2018

Received KRW 8,000,000 (USD 6,700) for a research project on classifying emotion from raw speech data.

#### **SERVICE**

#### Co-Founder & Member of the MPI-SP Ethics Review Board (ERB)

2024 - Present

Designed and implemented all processes relevant to the Ethics Review Board (ERB) at MPI-SP. Currently a member of the board, being responsible for reviewing studies.

#### PhD Representative for MPI-SP

Apr. 2024 - Present

Responsible for representing MPI-SP PhD students in meetings discussing student-related issues at MPI-SP and the Max Planck Society.

#### Member of the Max Planck Law | Tech | Society Initiative

Dec. 2023 - Present

Hosted speakers on topics in the intersection of law, technology, and society, and organized symposiums for graduate students from all around the world.

#### Reviewer

ACM Conference on Human Factors in Computing Systems (CHI)	2022 - 2024
ACM Conference on Fairness, Accountability, and Transparency (FAccT)	2023
Equity and Access in Algorithms, Mechanisms, and Optimization (EAAMO)	2023
ACM Conference on Computer-Supported Cooperative Work and Social Computing (CSCW)	2022
ACM Conference on Human Factors in Computing Systems (CHI) - Late Breaking Work	2022 - 2023
International Journal of Human-Computer Studies	2022
We Robot Conference	2021

**Teaching Assistant - Privacy, Data Governance and Usability**Ruhr University Bochum, Oct. 2023 - Feb. 2025
Responsible for grading students' assignments and assisting with administrative tasks.

#### **Research Intern**

Max Planck Institute for Software Systems (MPI-SWS), Jun. 2023 - Aug, 2023

Supervisor: Elissa Redmiles.

#### Teaching Assistant - Data Science Methodology (CS564)

KAIST, Aug. 2021 - Jun. 2022

Responsible for preparing and grading students' assignments, projects, and presentations and assisting with administrative tasks.

## **Teaching Assistant - Scientific Writing (CC500)**

KAIST, Aug. 2021 - Dec, 2021

Responsible for grading students' research papers and assisting with administrative tasks.

# MEDIA/ACADEMIC COVERAGE

#### Impacts: Law and AI - Max Planck Law

Oct. 2024

Reference to my ACM FAccT 2022 paper titled "The Conflict Between Explainable and Accountable Decision-Making Algorithms."

https://law.mpg.de/impact/law-and-ai/

Should Robots With Artificial Intelligence Have Moral or Legal Rights? - The Wall Street Journal Apr. 2023
Reference to my ACM CSCW 2020 paper titled "Collecting the Public Perception of AI and Robot Rights."
https://www.wsj.com/articles/robots-ai-legal-rights-3c47ef40

#### **PUBLICATIONS LIST**

Conferences are the primary publication venues for computer science/human-computer interaction (CS/HCI) research. Thus, the majority of my research is published in CS/HCI conference proceedings.

- \* denotes co-first authorship.
- P1) **Gabriel Lima**, Nina Grgić-Hlača, Markus Langer, Yixin Zou. "Lay Perceptions of Algorithmic Discrimination in the Context of Systemic Injustice." *To Appear in the Proceedings of the CHI Conference on Human Factors in Computing Systems*. 2025.
- P2) **Gabriel Lima**, Nina Grgić-Hlača, Elissa Redmiles. "Public Opinions About Copyright for Al-Generated Art: The Role of Egocentricity, Competition, and Experience." *To Appear in the Proceedings of the CHI Conference on Human Factors in Computing Systems*. 2025.
- P3) Xinru Tang, **Gabriel Lima**, Li Jiang Jiang, Lucy Simko, Yixin Zou. "Beyond 'Vulnerable Populations:' A Unified Understanding of Vulnerability From A Socio-Ecological Perspective." To Appear in the Proceedings of the ACM Conference on Computer-Supported Cooperative Work and Social Computing (CSCW). 2025.
- P4) **Gabriel Lima**, Nina Grgić-Hlača, Jin Keun Jeong, Meeyoung Cha. "Who Should Pay When Machines Cause Harm? Laypeople's Expectations of Legal Damages for Machine-Caused Harm." *Proceedings of the 2023 Conference on Fairness*, Accountability, and Transparency (FAccT). 2023. https://doi.org/10.1145/3593013.3593992
- P5) **Gabriel Lima**, Nina Grgić-Hlača, Meeyoung Cha. "Blaming Humans and Machines: What Shapes People's Reactions to Algorithmic Harm." *Proceedings of the CHI Conference on Human Factors in Computing Systems*. 2023.
  - https://doi.org/10.1145/3544548.3580953
- P6) Hyojin Chin, **Gabriel Lima**, Mingi Shin, Assem Zhunis, Chiyoung Cha, Junghoi Choi, Meeyoung Cha. "User-Chatbot Conversations During the COVID-19 Pandemic: A Study Based on Topic Modeling and Senti-

ment Analysis." *Journal of Medical Internet Research (JMIR*). 2023. http://dx.doi.org/10.2196/40922

P7) **Gabriel Lima**, Nina Grgić-Hlača, Jin Keun Jeong, Meeyoung Cha. "The Conflict Between Explainable and Accountable Decision-Making Algorithms." *Proceedings of the 2022 Conference on Fairness, Accountability, and Transparency (FAccT)*. 2022.

https://doi.org/10.1145/3531146.3534628

P8) **Gabriel Lima**, Jiyoung Han, Meeyoung Cha. "Others Are to Blame: Whom People Consider Responsible for Online Misinformation." *Proceedings of the ACM Conference on Computer-Supported Cooperative Work and Social Computing (CSCW)*. 2022. https://doi.org/10.1145/3512953

P9) Assem Zhunis, **Gabriel Lima**, Hyeonho Song, Jiyoung Han, Meeyoung Cha. "Emotion Bubbles: Emotional Compositions of Online Discourse Before and After the COVID-19 Outbreak." *Proceedings of the Web Conference (WebConf)*. 2022.

https://doi.org/10.1145/3485447.3512132

P10) Nina Grgić-Hlača, **Gabriel Lima**, Adrian Weller, Elissa M. Redmiles. "Dimensions of Diversity in Human Perceptions of Algorithmic Fairness." *Equity and Access in Algorithms, Mechanisms, and Optimization (EAAMO)*. 2022.

https://doi.org/10.1145/3551624.3555306

- P11) Karandeep Singh\*, **Gabriel Lima**\*, Meeyoung Cha, Chiyoung Cha, Juhi Kulshrestha, Yong-Yeol Ahn, Onur Varol. "Misinformation, Believability, and Vaccine Acceptance Over 40 Countries: Takeaways From the Initial Phase of The COVID-19 Infodemic." *PLOS ONE*. 2022. https://doi.org/10.1371/journal.pone.0263381
- P12) Saifeldeen Zihiri\*, **Gabriel Lima**\*, Jiyoung Han, Meeyoung Cha, Wonjae Lee. "QAnon Shifts Into the Mainstream, Remains a Far-Right Ally." *Heliyon*. 2022. https://doi.org/10.1016/j.heliyon.2022.e08764
- P13) **Gabriel Lima**, Nina Grgić-Hlača, Meeyoung Cha, Jin Keun Jeong. "How XAI May Be Exploited To Create Seemingly Blameworthy AI." Human-Centered Explainable AI (HCXAI) Workshop at the 2022 CHI Conference on Human Factors in Computing Systems. 2022.
- P14) **Gabriel Lima**, Nina Grgić-Hlača, Meeyoung Cha. "Human Perceptions on Moral Responsibility of AI: A Case Study in AI-Assisted Bail Decision-Making." *Proceedings of the CHI Conference on Human Factors in Computing Systems*. 2021.

https://doi.org/10.1145/3411764.3445260

- P15) **Gabriel Lima**, Meeyoung Cha, Chihyung Jeon, Kyung Sin Park. "The Conflict Between People's Urge to Punish AI and Legal Systems." *Frontiers in Robotics and AI*. 2021. https://doi.org/10.3389/frobt.2021.756242
- P16) **Gabriel Lima**, Assem Zhunis, Lev Manovich, Meeyoung Cha. "On the Social-Relational Moral Standing of Al: An Empirical Study Using Al-Generated Art." *Frontiers in Robotics and Al.* 2021. https://doi.org/10.3389/frobt.2021.719944
- P17) Meeyoung Cha, Chiyoung Cha, Karandeep Singh, **Gabriel Lima**, Yong-Yeol Ahn, Juhi Kulshrestha, Onur Varol. "Prevalence of Misinformation and Factchecks on the COVID-19 Pandemic in 35 Countries: Observational Infodemiology Study." *JMIR Human Factors*. 2021. https://doi.org/10.2196/23279
- P18) **Gabriel Lima**, Changyeon Kim, Seungho Ryu, Chihyung Jeon, Meeyoung Cha. "Collecting the Public Perception of Al and Robot Rights." *Proceedings of the ACM Conference on Computer-Supported Cooperative Work*

and Social Computing (CSCW). 2020. https://doi.org/10.1145/3415206

- P19) **Gabriel Lima**, Chihyung Jeon, Meeyoung Cha, Kyungsin Park. "Will Punishing Robots Become Imperative in the Future?" *Extended Abstracts of the CHI Conference on Human Factors in Computing Systems*. 2020. https://doi.org/10.1145/3334480.3383006
- P20) **Gabriel Lima**, Meeyoung Cha. "Descriptive AI Ethics: Collecting and Understanding the Public Opinion." *Ethics in Design Workshop at the ACM Conference on Computer-Supported Cooperative Work and Social Computing (CSCW)*. 2020.

https://arxiv.org/abs/2101.05957

P21) **Gabriel Lima**, Meeyoung Cha. "Responsible AI and Its Stakeholders." Fair and Responsible AI Workshop at 2020 CHI Conference on Human Factors in Computing Systems. 2020. https://arxiv.org/abs/2004.11434