Shalaleh Rismani

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Education

	Doctor of Philosophy (Ph.D.), <u>Electrical and Computer Engineering</u> McGill University and Mila Quebec AI Institute (Montreal, Canada) Thesis title: Establishing System Safety Practices for Responsible AI Developmen Advisor: Dr. AJung Moon	2025 (exp.) t
•	Masters of Applied Science (M.A.Sc), <u>Biomedical Engineering</u> University of British Columbia (Vancouver, Canada)	2017
	Thesis title: Use of Activity Theory as Basis for a Noverl Needs-Finding Technique Device Development in Low-Resource Environments Advisor: Dr. Machiel Van Der Loos	e for Medical
•	Bachelors of Applied Science (B.A.Sc), Mechanical Engineering (Mechatronics) University of British Columbia (Vancouver, Canada) Graduated with Dean's Honour List	2013

Notable Awards and Recognitions

Academic Scholarships

NSERC (Natural Sciences and Engineering Research Council of Canada) - Canada's primary federal agency for funding research in natural sciences and engineering, supporting innovation and academic excellence through scholarships, grants, and fellowships.

NSERC Canadian Graduate Scholarship (Doctoral) - 2022

(Awarded to top 20% of doctoral applicants in Canada; valued at CAD 35, 000/year for one year) NSERC Postgraduate Graduate Scholarship (Doctoral) – 2020-2021 (Awarded to top 40% of doctoral applicants in Canada; valued at CAD \$21,000/year for two years) Les Vadasz Engineering Fellowship – 2020 (Merit-based fellowship recognizing outstanding engineering leaders; valued at CAD \$32,000 for four years) NSERC Canadian Graduate Scholarship (Masters) – 2013 (Awarded to top 25% graduate students in Canada; valued at CAD \$17,500/year) Research In Science and Engineering (RISE) Award (Germany) – 2012 (Highly competitive DAAD-funded research internship program for students from U.S, Canada and the UK) NSERC Undergraduate Student Research Award – 2010 (Supports high-achieving undergraduate researchers; valued at CAD \$7,500)

Awards for Research and Innovation

AI, Ethics and Society (AIES) 2023 Honorable Mention Best Paper Award – 2023 (Acceptance rate: 28.9%; AIES is a leading AAAI/ACM conference in AI ethics.) We Robot 2020 Best Poster Award – 2020 (Top poster among participants at the premier conference on law, policy, and robotics) International Top 20 Project, James Dyson Award Competition – 2015 (Recognized as one of the top global entries in design and engineering innovation)

Leadership and Recognition

Diamond Jubilee II Medal of Canada - 2013

(Awarded for significant contributions to the community and exceptional achievements, marking Queen Elizabeth II's 60th anniversary) **UBC Mechanical Engineering Department Leadership Award –** 2013 (Recognizes outstanding leadership and contributions to the department)

Go Global International Learning Programs Award – 2010

(Recognizes student leaders participating in international service learning opportunities)

Conference Publications

C1. Shelby, R., **Rismani, S.**, & Rostamzadeh, N. (<u>2024</u>). Generative AI in creative practice: ML-artist folk theories of T2I use, harm, and harm-reduction. *Proceedings of the CHI Conference on Human Factors in Computing Systems*, *12*, 1–17.

C2. Ananto, R. A., **Rismani, S.**, Zhu, L., Wong, C. Y., & Moon, A. (2024). Roboethics for Everyone–A Hands-On Teaching Module for K-12 and Beyond. *Canadian Engineering Education Association*.

C3. **Rismani, S.**, Shelby, R., Smart, A., Delos Santos, R., Moon, A.*, & Rostamzadeh, N.* (<u>2023</u>). Beyond the ML Model: Applying Safety Engineering Frameworks to Text-to-Image Development. *Proceedings of the 2023 AAAI/ACM Conference on AI, Ethics, and Society*, 70–83.

C4. **Rismani, S.**, & Moon, A. (2023). What does it mean to be a responsible AI practitioner: An ontology of roles and skills. *Proceedings of the 2023 AAAI/ACM Conference on AI, Ethics, and Society*, 584–595.

C5. **Rismani, S.**, Shelby, R., Smart, A., Jatho, E., Kroll, J., Moon, A., & Rostamzadeh, N. (2023). From Plane Crashes to Algorithmic Harm: Applicability of Safety Engineering Frameworks for Responsible ML. *Proceedings of the 2023 CHI Conference on Human Factors in Computing Systems*.

C6. Shelby, R., **Rismani, S.**, Henne, K., Moon, A., Rostamzadeh, N., Nicholas, P., Yilla-Akbari, N. 'mah, Gallegos, J., Smart, A., Garcia, E., & Virk, G. (2023). Sociotechnical Harms of Algorithmic Systems: Scoping a Taxonomy for Harm Reduction. *Proceedings of the 2023 AAAI/ACM Conference on AI, Ethics, and Society*, 723–741. **[Honorable best paper award]**

C7. Chan, A., Salganik, R., Markelius, A., Pang, C., Rajkumar, N., Krasheninnikov, D., Langosco, L., He, Z., Duan, Y., Carroll, M., Lin, M., Mayhew, A., Collins, K., Molamohammadi, M., Burden, J., Zhao, W., **Rismani, S.**, Voudouris, K., Bhatt, U., ... Maharaj, T. (2023). Harms from Increasingly Agentic Algorithmic Systems. *Proceedings of the 2023 ACM Conference on Fairness, Accountability, and Transparency*, 651–666.

C8. Rhim, J., Lin, C., Werner, A., DeHart, B., Qiang, V., **Rismani, S.**, & Moon, A. (<u>2022</u>). Roboethics as a Design Challenge: Lessons Learned from the Roboethics to Design and Development Competition. *2022 International Conference on Robotics and Automation (ICRA)*, 11244–11250.

C9. **Rismani, S.,** Moon, A., (2021). How do AI systems fail socially?: an engineering risk analysis approach. *2021 IEEE International Symposium on Ethics in Engineering, Science and Technology.*

C10. Szilagyi, K., Millar, J., Moon, A., **Rismani, S.** (2021). Driving into the Loop: Mapping Automation Bias & Liability Issues for Advanced Driver Assistance Systems. *2021 We Robot*, Miami, Florida.

C11. **Rismani, S.,** Moon, A. (2020). Can we measure ethics of an AI system? If yes, what do we measure? How do we measure?. *2020 We Robot*, Ottawa, Canada [Best poster award]

C12. Moon, A. Kim, S., **Rismani, S.**, Millar, J. (2018). Lessons Learned: An Ethics Roadmap for Real-Time Predictions. *presented at PAPI 2018, UK.* In press *Journal of Machine Learning Research.*

C13. **Rismani, S.**, & Van der Loos, H. F. M. (2017). Improving needs-finding techniques for medical device development at low resource environments using Activity Theory. In *DS 87-1 Proceedings of the 21st International Conference on Engineering Design (ICED 17) Vol 1: Resource Sensitive Design, Design Research Applications and Case Studies, Vancouver, Canada, 21-25.08.2017* (pp. 249–258).

C14. **Rismani, S.**, Ostafichuk, P., Jaeger, C., & Nakane, J. (<u>2018</u>). Using a project on assistive technology to teach cad and rapid prototyping. *Proceedings of Canadian Engineering Education Association (CEEA)*.

C15. **Rismani, S.**, Ratto, M., & Machiel Van der Loos, H. F. (<u>2016</u>). Use of activity theory-based need finding for biomedical device development. *Annual International Conference of the IEEE Engineering in Medicine and Biology Society. (EMBC).* 4341–4344.

C16. **Rismani, S.**, & Van der Loos, H. F. M. (<u>2015</u>). The competitive advantage of using 3D- printing in low-resource healthcare settings. *Proceedings of the 20th International Conference on Engineering Design (ICED)*, 495–504.

C17. **Rismani, S.**, Allan, G., Chung, V., Tam, R., Wilson, D. R., & Van der Loos, H. F. M. (<u>2014</u>). Applying the biodesign innovation process: Addressing the inadequate supply of surgical screws in the developing world. *2014 IEEE Healthcare Innovation Conference (HIC)*, 259–262.

Journal Publications

J1. *[Submitted]* **Rismani, S.,** Dobbe, R., & Moon, A. (2024). From silos to systems: Process-oriented Hazard Analysis for AI systems. In *arXiv [cs.AI]*. https://arxiv.org/abs/2410.22526.

J2. Szilagyi, K., Millar, J., Moon, A., & **Rismani, S.** (2023). Driving into the loop: Mapping automation bias and liability issues for advanced driver assistance systems. *Digital Society: Ethics, Socio-Legal and Governance of Digital Technology*, *2*(3), 41.

J3. Moon, A., **Rismani, S**. & Van der Loos, H.F.M. Ethics of Corporeal, Co-present Robots as Agents of Influence: a Review. Curr Robot Rep (2021). https://doi.org/10.1007/s43154-021-00053-6

J4. Smith, E. M., **Rismani, S.**, Ben Mortenson, W., Mihailidis, A., & Miller, W. C. (2019). A chance to try": Exploring the clinical utility of shared-control teleoperation for powered wheelchair assessment and training. *The American Journal of Occupational Therapy: Official Publication of the American Occupational Therapy Association*, 73(6), 7306205020p1-7306205020p11.

Workshop Publications

W1. **Rismani, S.**, Blodgett, S. L., Olteanu, A., Liao, Q. V., & Moon, A. (<u>2024</u>). How different mental models of AI-based writing assistants impact writers' interactions with them. *Proceedings of the Third Workshop on Intelligent and Interactive Writing Assistants*, *12*, 34–37.

W2. Walker, A. M., DeVito, M. A., Badillo-Urquiola, K., Bellini, R., Chancellor, S., Feuston, J. L., Henne, K., Kelley, P. G., **Rismani, S.**, Shelby, R., & Zhang, R. (2024). "What is Safety?": Building Bridges Across Approaches to Digital Risks and Harms. *Companion Publication of the 2024 Conference on Computer-Supported Cooperative Work and Social Computing*, 736–739.

W3. **Rismani, S.**, Shelby, R., Smart, A., Jatho, E., Kroll, J., Moon, A., Rostamzadeh, N. (<u>2022</u>). From plane crashes to algorithmic harm: applicability of safety engineering frameworks for responsible ML. NeurIPS Workshop on Machine Learning Safety 2022.

W4. Jatho, E., Mailloux, L., **Rismani, S.**, Williams, E., Kroll, J.(<u>2022</u>). System Safety Engineering for Social and Ethical ML Risks: A Case Study. NeurIPS Workshop on Machine Learning Safety 2022.

Collaborative Reports

Union Partnerships Report: Exploring technology deployment strategies for Canadian organizations that actively engage workers

Canadian Robotics Council and Open Roboethics Institute, November 2024

Authors: Shalaleh Rismani, Simona Chiose

(Developed to inform Canadian policy conversations about robotics and labour)

General Purpose AI Systems: capabilities, limitations, and risks

Mila Quebec AI Institute, May 2024

Authors: Claire Boine, Shalaleh Rismani, Henri Vilandre, Anna Jahn (Prepared for Innovation, Science and Economic Development (ISED) Canada to inform Canadian AI regulations)

Psychological Impact of AI Systems

Mila Quebec AI Institute, May 2023

Authors: Shalaleh Rismani, Isadora Hellegren, Anna Jahn

(Prepared for Innovation, Science and Economic Development (ISED) Canada to inform Canadian AI regulations)

Foresight into AI Ethics Toolkit: A toolkit for creating an ethics roadmap for your AI project Open Roboethics Institute, <u>October 2019</u>

Authors: AJung Moon, **Shalaleh Rismani**, Jason Millar, Terralynn Forsyth, Jordan Eshpeter, Muhammad Jaffar, Anh Phan

(Developed one of the first openly accessible toolkits for mapping ethical issues for AI systems)

JDQ Systems Code of Ethics: Design and Deployment of a Robotic Platform for Developmental Disability Association Group Homes

Open Roboethics Institute, <u>February 2019</u>

Authors: Shalaleh Rismani, AJung Moon

(Developed code of ethics for JDQ Systems used internally for developing a care robotic platform)

Report Series - Public Opinion Surveys and Perspectives on Self-Driving Cars

Open Roboethics Institute, 2017-2018

Authors: Shalaleh Rismani, AJung Moon and Jason Millar

(Designed and analyzed three public opinion surveys and an interview-based qualitative study to examine public perspecitves towards self-driving cars. The report informed Korean policy makers.)

Ethics Analysis of Predictive Algorithms: An Assessment Report for Technical Safety BC Generation R Consultion, July 2017

Authors: **Shalaleh Rismani**, AJung Moon and Jason Millar

(Led and conducted a comprehensive AI ethics internal audit for Technical Safety BC)

The Ethics and Governance of Lethal Autonomous Weapons Systems

Open Roboethics Institute, November 2015

Authors: Jason Millar, AJung Moon, Shalaleh Rismani (Co-authored a report presented at the U.N. Convention for Conventional Weapons summarizing the results from an international public opinion poll)

Service

Workshop and Tutorial Organization

FAccT 2024 Translation Tutorial: Translating Lessons from 100 Years of Safety Engineering to Responsible ML Development

Organizers: Shalaleh Rismani, Roel Dobbe, AJung Moon (Co-developed tutorial translating safety engineering principles into actionable practices for responsible AI development)

FAccT 2024 Dialogue/Implications Tutorial: What is Sociotechnical AI Safety? A Participatory Workshop About Defining and Expanding Responses to Sociotechnical Risk in AI Safety Organizers: Andrew Smart, Shazeda Ahmed, Jake Metcalf, Atoosa Kasirzadeh, Luca Belli, **Shalaleh Rismani**, Roel Dobbe, Abbie Jacobs, Joshua A. Kroll, Donald Martin Jr., Renee Shelby, Heidy Khlaaf (Co-developed materials for this participatory workshop on sociotechnical risks in AI safety)

CSCW 2024 Workshop: *"What is Safety?" Building Bridges Across Approaches to Digital Risks and Harms*

Organizers: Ashley Marie Walker, Michael Ann, Karla Badillo-Urquiola, Rosanna Bellini, Stevie Chancellor, Jes Feuston, Kathryn Henne, Dr. Patrick Gage Kelley, **Shalaleh Rismani**, Renee Shelby, Renwen Zhang (Collaborated with an interdisciplinary team to explore shared definitions of safety across domains)

CVPR 2023 Workshop: Third Workshop on Ethical Considerations in Creative Applications of Computer Vision (EC3V)

Organizers: Rida Qadri, Mohammad Havaei, Emily Denton, Ziad Al-Halah, Fernando Diaz, Negar Rostamzadeh, Sarah Laszlo, **Shalaleh Rismani**, Atieh Taheri, Pamela Peter-Agbia, Eva Kozanecka (Invited speakers to discuss ethical and social issues of creative computer vision applications)

Roboethics Competition (ROMAN 2021 and ICRA 2022):

Organizers: AJung Moon, Brandon Dehart, Jimin Rhim, Rahat Ananto, and Shalaleh Rismani (Designed competition challenges to engage students and researchers in solving real-world roboethics issues)

Canadian Engineering Education Association Annual Conference (2021): Enhancing

Engineering Education Through Collaboration Across Disciplines to Create Health and Assistive Technologies Organizers: Shalaleh Rismani, Emily Smith, Machiel Van der Loos, William C. Miller (Presented strategies for interdisciplinary collaboration in engineering education)

Peer-review Service

CHI 2025: Area Chair

(Managed peer review process for five papers which include desk reject identification, finding and assigning reviewers and synthesizing reviewer feedback in a meta-review)

FAccT 2024: Program Committee Member

(*Reviewed six interdisciplinary papers at the intersection of fairness, accountability, and transparency in AI systems*)

CHI 2024: Reviewer

(Reviewed submissions related to HCI and responsible AI)

HRI 2024: Reviewer

(*Reviewed papers on human-robot interaction and responsible design*)

NeurIPS 2023: Reviewer for Socially Responsible Language Modelling Research Workshop (*Reviewed submissions focusing on societal impacts of language model*)

AIES 2021, 2022: Reviewer

(Reviewed work on AI ethics for this leading conference)

Mentorship and Supervision Experience

Leah Davis (MSc, incoming PhD): <u>May 2022 – Present</u>

Supervised work on a scoping review, MSc project scoping, and dataset visualization. Supported student leadership development at the Open Roboethics Institute.

Gauri Sharma (MSc): July – September 2024

Supervised work on setting up a human-AI interaction experiment platform.

Bonam Mingole (MSc, Working Professional): <u>August 2023 – April 2024</u>

Supervised work on extensive scoping reviews.

Kiara Wimbush (Senior Undergraduate): <u>September 2023 – December 2023</u>

Supervised work on setting up a human-AI interaction experiment platform and pilots.

Ava Gilmour (Senior Undergraduate): <u>August 2023 – November 2023</u>

Supervised work on query searches for a scoping review.

Vivian Qiang (Senior Undergraduate): <u>May 2021 – April 2022</u>

Mentored Open Roboethics Institute intern on grant writing and funding strategies.

Cheng Lin (Senior Undergraduate): <u>September 2021 – April 2022</u>

Supported student leadership development at the Open Roboethics Institute.

Jake Chanenson (Senior Undergraduate): <u>May 2020 – August 2020</u>

Supervised work on scoping review and academic paper writing.

Community Involvement and Volunteering

Executive Director

<u> Jan 2020 – Present</u>

Open Roboethics Institute

Lead the strategic direction and operations of the institute, advancing research and initiatives at the intersection of robotics, AI, and ethics.

Volunteer Member

<u> Apr 2013 – Mar 2017</u>

Open Roboethics Initiative

Contributed to research, and project execution of various projects as a volunteer contributor. In 2017, I co-founded ORI as a not-for-profit organization and worked professionally at ORI from 2017 to 2019, leading impactful initiatives and advancing the institute's mission in ethical AI and robotics. In 2020, as I started by doctoral studies at McGill University, I started serving as executive director of ORI in volunteer capacity.

Director, Teacher, Choreographer

<u> Jun 2009 – Present</u>

Chichaklar Dance Company

Founded the company and oversee artistic direction, choreography, and teaching for a dance company specializing in innovative performances rooted in Azerbaijani cultural heritage.

Vice President, External Communication

<u> Jan 2020 – Aug 2021</u>

Graduate Engineering Equity Committee (GEEC)

Managed external relations, promoting equity and inclusion initiatives within the engineering graduate community.

Vice President of Communication

<u> Jan 2014 – Dec 2015</u>

Mechanical Engineering Graduate Association

Directed communication strategies and organized events to enhance the graduate student experience.

Event Coordinator

<u> Apr 2011 – Apr 2013</u>

Women in Engineering, UBC Student Development

Planned and executed events promoting diversity, inclusion, and professional development for women in engineering.

Teaching and Curriculum Design Experience

Teaching assistant and curriculum designer ECSE 557, Introduction to Ethics of AI Systems McGill University, Canada

- Assist in the design and development of the course content for tutorials and the assignments
- Deliver tutorials on practical operationalization of AI ethics toolkits and frameworks

Adjunct Professor,

APSC 100/100 Introduction to Engineering Design University of British Columbia, Canada

• Facilitate and lead the design studios for seven different modules that are part of the firstyear engineering design course at UBC

June 2021- April 2024

Sep 2018 – Apr 2021

Summer Program offered to 60 international students who speak English as their second language		
AI Ethics and STEM Teacher Brainboost, Vancouver, Canada	Jan 2018 – Mar 2020	
Work on the STEM (Science, Technology, Engineering, and Mathematics) subjects with students from the age of 12-19 who have different learning abilities and have had difficulties in the regular school system Teach an AI/robot ethics course to k-12		
Curriculum designer First Year Chair Team, University of British Columbia	Jun 2015- Apr 2017	
• Lead the design and development of all the content for a 3-week module on designing assistive technologies as part of a new first-year engineering design course		
Community-based experiential learning coordinator Center for Community-Engaged Learning, University of British Columbia	May 2016- Apr 2017	
Create and coordinate experiential learning experience for 2^{nd} and 3^{rd} year civil, electrical and mechanical engineering courses		
Iuate teaching assistantJan 2014 – Apr 2016hanical Engineering Department, University of British ColumbiaJan 2014 – Apr 2016		
 Prepare teaching material and deliver lab and tutorials for 2nd year mechanical engineering students for a fluid mechanics lab and a design course 		
Peer-assisted study session (PASS) leader and coordinator Center for Student Involvement and Careers, University of British Columbia	Jan 2013 – Apr 2015	
• Design and deliver PASS sessions for first-year engineering math and following the supplemental instruction model, coordinate and train a	physics courses group of PASS leaders	

Design, teach and manage a 3-credit roboethics course during the 4-week Vancouver

Invited talks and presentations

• Connect the students learning with other

University of British Columbia, Canada

UBC Vancouver Summer Program – Robotics/Roboethics

Adjunct Professor,

•

2024

"Defining What Matters: A System Safety Approach to AI Measurement and Evaluation", <u>Guest</u> <u>Lecturer</u> for CMU Graduate-level Course on Evaluations for Machine Learning Systems taught by Dr.

May 2018 – Aug 2018

Fernando Diaz. November 2024

"Sociotechnical harms of algorithmic systems: Taxonomy of harm reduction," <u>Presenter and</u> <u>Panelist</u> at Artificial Intelligence Series, Canada School of Public Service, Montreal, Canada. *October* 2024

"Responsible AI research and development: Role of Impact Assessments," <u>Presenter and Workshop</u> <u>Facilitator</u> at Mila Quebec AI Institute Trustworthy and Responsible AI Learning (TRAIL) Industry, Montreal, Canada. *October 2024*

"Responsible AI Development: Assessments along the AI Lifecycle," <u>Presenter and Workshop</u> <u>Facilitator</u> at Climate Change AI Summer School, Montreal, Canada. *August 2024*

"Responsible AI research and development: Considerations for NLP Research," <u>Presenter and</u> <u>Workshop Facilitator</u> at Mila Quebec AI Institute Trustworthy and Responsible AI Learning (TRAIL) Research, Montreal, Canada. *July 2024*

"Responsible AI research and development: Considerations for Theoretical ML Research," <u>Presenter and Workshop Facilitator</u> at Mila Quebec AI Institute Trustworthy and Responsible AI Learning (TRAIL) Research, Montreal, Canada. *April 2024*

"Self-Regulating Responsible AI Development: Assessments and mitigations along the AI Lifecycle," <u>Expert speaker</u> at Mila Quebec AI Institute AI Policy Compass, Ottawa, Canada. *March 2024*

"Responsible AI research and development: Considerations for NeuroAI," <u>Presenter and Workshop</u> <u>Facilitator</u> at Mila Mila Quebec AI Institute Trustworthy and Responsible AI Learning (TRAIL) Research, Montreal, Canada. *January 2024*

" Impact assessment and Ethics-by-design frameworks," <u>Expert speaker</u> at Mila Quebec AI Institute TRAIL Industry, Montreal, Canada. *January 2024*

2023

"Safety Engineering for Responsible ML Development," <u>Expert Presenter</u> at Sociotechnical Safety Workshop, Stanford, California. *November 2023*

"Tools to assess downstream impacts of research," <u>Expert Speaker</u> at Mila Quebec AI Institute TRAIL Industry, Montreal, Canada. *November 2023*

"Safety Engineering for Responsible ML Development," <u>Guest Lecturer</u> for ECSE 681, McGill University, Montreal, Canada. *October 2023*

"Operationalizing Safe and Responsible Development of AI Systems," <u>Expert Speaker</u> at Mila Quebec AI Institute Partner Symposium, Montreal, Canada. *May 2023*

"Ethics-by-design: Integrating Ethical Reasoning Throughout AI Lifecycle," <u>Expert Speaker</u> at Mila Quebec AI Institute Responsible AI Summer School, Montreal, Canada. *May 2023*

"Responsible AI research and development: Role of Impact Assessments," <u>Expert Speaker</u> at Mila Quebec AI Institute Trustworthy and Responsible AI Learning (TRAIL) Industry, Montreal, Canada.

March 2023

"Introduction to Interpretability and Transparency," <u>Guest Lecturer</u> for ECSE 557, McGill University, Montreal, Canada. *February 2023*

2022-2019

"Responsible AI research and development: Impact Assessments and Impact Statements," <u>Expert</u> <u>Speaker</u> at Mila Quebec AI Institute Trustworthy and Responsible AI Learning (TRAIL) Research, Montreal, Canada. *2022*

"Ericsson AI Ethics Workshop", <u>Expert Speaker</u> at Mila Quebec AI Institute, Montreal, Canada. 2022

"How can we design ethical AI systems? Practitioner's Perspective," <u>Industry Forum Speaker</u> at International Symposium of Industrial Electronics (ISIE). Vancouver, Canada. *2019*

"Open Roboethics Institute AI Ethics Assessment Toolkit," <u>Presenter and facilitator</u> at Canada NextAI Workshop, Vector Research Institute, Toronto, Canada. *2019*

"How can we design ethical AI systems?" <u>Keynote speaker</u> at Women in Data Science Conference, Vancouver, Canada. *2019*

"Can we trust AI?" and "Can privacy exist in the 21st century?" <u>Debater</u> at Women in Communication and Technology (BC Chapter) Women in Debate series, Vancouver, Canada. *2019*

2018-2015

"How can we design ethical AI and robotic systems?," <u>Keynote speaker</u> at BC Privacy Professionals Keynote, Vancouver, Canada. 2018

"How can we design ethical AI and robotic systems?," <u>Keynote speaker</u> at IEEE WiE Conference Keynote, Vancouver, Canada. 2018

"How can we design ethical AI and robotic systems?" <u>Featyred speaker</u> at ASQ Vancouver, Vancouver, Canada. 2018

"How can we design ethical AI and robotic systems?" <u>Featured speaker</u> at Norton Rose Fulbright AI Summit, Vancouver, Canada. 2018

"How can we design ethical AI and robotic systems?" <u>Featured Speaker</u> at FVCPAA (Fraser Valley Chartered Professional Accountant Association), Vancouver, Canada. 2018

"Ethical Implications of Autonomous Cars," <u>Speaker</u> at Peter Wall Scholar's Lunch Talk, Vancouver, Canada. 2018

"Playing in the Wilderness: Lessons from Creating Generation R," Speaker at TECH Vancouver, Canada. 2017

"Stories of Open Roboethics Institute," <u>Speaker</u> at iHub Gala, Vancouver, Canada. 2017

"Artificial Intelligence and Robotics – How Machine Autonomy is Changing the Way We Live?" <u>Guest</u>

Lecturer at UBC Extended Learning – New Trends in Science, Vancouver, Canada. 2017

Speaker at Human Factors Community of Practice, Vancouver, Canada. 2017

"Implications of Exponential Technology," Panelist at Singularity U Event, Vancouver, Canada. 2017

"Artificial Intelligence and Robotics – How Machine Autonomy is Changing the Way We Work?"

"What should a robot do? Robotics and Roboethics," <u>Speaker</u> at BC Humanist Association, Vancouver, Canada. 2017

"Collaborating to Create Assistive Technology: Cross-Cultural Dialogue," <u>Panelist</u> at OT24 (Occupational Therapy) -Hour Virtual Exchange. Online, 2016

"The Screw Cutter Project," <u>Presenter</u> at Clinton Foundation Symposium, Miami, United States. 2015

Research and Work Experience

Responsible AI consultant

Jan 2023 – Present Oct 2021 – Apr 2022

Mila Quebec AI Institute, Montreal, Canada

- Conduct organizational research to understand the existing perspectives towards implementation of AI ethics practices
- Assist in developing appropriate responsible AI tools for machine learning researchers
- Lead and contribute to research projects that support AI policy development in Canada

Student researcher

May 2022 – Dec 2022

Apr 2017 – Dec 2019

Google, Montreal, Canada

- Conducted research on application of safety engineering frameworks on AI systems.
- Designed and implemented qualitative studies on applying safety engineering frameworks on multiple case studies.
- Collaborated with interdisciplinary teams to address challenges in implementing safety engineering frameworks.
- Contributed to technical reports and publications, effectively communicating research findings to both technical and non-technical stakeholders.

Co-Founder and design researcher

Open Roboethics Institute, Vancouver, Canada

- Co-founded the Open Roboethics Institute (ORI) to address critical challenges at the intersection of robotics, AI, and ethics.
- Delivered presentations at various academic, industry, and public venues to promote ORI's mission and projects, building awareness of roboethics and its societal impact.

- Page 12
- **Undergraduate Research Assistant** May 2010 – Aug 2010 Collaborative Advanced Robotics and Intelligent Systems (CARIS) Lab, Vancouver, Canada
 - Develop anthromimetic feedback on the wrist of an industrial robotic arm such that the human-robot collaborator can more intuitively understand the joint limits of the arm.

• Develop an online catalog for all major design modifications using Adobe Dreamweaver by collecting expert opinion, complete several small design modifications to the helicopter

- Heli-One (Delta, Canada)
- Use MATLAB to analyze a set of position and pressure data from an undersea robotic excavator to calculate the specific energy and determine the shape of the excavated region.

Design Approval Organization Engineering Intern

Founder and System Analyst

Design Research Assistant

Generation R Consulting, Vancouver, Canada

Data Analyst Cellula Robotics, Vancouver, Canada

RISE Engineering Research Assistant May 2012 – Aug 2012

- **Engineers-in-Scrubs Research Assistant**
- May 2013 Aug 2013 University of British Columbia, Vancouver, Canada

Rehabilitation Research Lab, GF Strong Rehabilitation Center, Vancouver, Canada

and policymakers to expand ORI's reach and research opportunities.

social implications of implementing automation initiatives in companies Performed ethics assessment for organizations deploying predictive algorithms

• Fostered new partnerships and collaborations with academic institutions, industry leaders,

• Co-founded Generation R Consuling and developed a framework to identify ethical and

- Use grounded theory principles to analyze feedback from nurses and surgeons

 Co-interview and host prototyping and testing sessions with occupational therapists Assist in analyzing, synthesizing the data and providing design recommendations

- Develop design needs and requirements based on the analysis for medical devices used in international orthopedic surgery

Laboratory for Machine Tools and Production Engineering, RWTH, Aachen, Germany

- Design a program to control the SCHUNK robotic gripper using Simulink and MATLAB
- Develop ideas for using the force data from the tactile sensors of the gripper to ease the assembly process

Jan 2012 – Apr 2012

Sep 2010 – Dec 2010

Apr 2017 – Jan 2019

Jun 2014 – Jan 2015