

# SONIA RAYCHAUDHURI

<https://sonia-raychaudhuri.github.io>

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## SUMMARY

I am a PhD student in Computer Science at the [GrUVi Lab](#), in [Simon Fraser University](#), advised by [Dr. Angel Chang](#). I am broadly interested in grounding language in 3D environments. More specifically, I am working to build Embodied AI agents capable of following instructions in human language to navigate in 3D indoor environments.

Earlier I graduated with a B.E. degree in Engineering from [IIST](#) and thereafter worked with TCS and Ericsson as a Software Engineer, before deciding to pursue research in AI.

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Keywords	Embodied agents, vision and language navigation, object navigation, multi-object navigation, reinforcement learning, robotic vision
Education	Simon Fraser University Ph.D., Computer Science (2020-present)  IIST, Shibpur, India Bachelor of Engineering, Information Technology (2003-2007)
Teaching Experience	Graduate Teaching Assistant Natural Language Processing, Fall 2021  Graduate Teaching Assistant Grounded Natural Language Understanding, Spring 2021  Graduate Teaching Assistant Natural Language Processing course, Fall 2020
Publications	<u><a href="#">Reduce, Reuse, Recycle: Modular Multi-Object Navigation.</a></u> S. Raychaudhuri, T. Campari, U. Jain, M. Savva, A. Chang. arxiv 2023. <a href="#">[project]</a>  <u><a href="#">Retrospectives on the embodied ai workshop.</a></u> Matt Deitke, Dhruv Batra, Yonatan Bisk, Tommaso Campari, Angel X Chang, Devendra Singh Chaplot, Changan Chen, Claudia Pérez D'Arpino, Kiana Ehsani, Ali Farhadi, Li Fei-Fei, Anthony Francis, Chuang Gan, Kristen Grauman, David Hall, Winson Han, Unnat Jain, Aniruddha Kembhavi, Jacob Krantz, Stefan Lee, Chengshu Li, Sagnik Majumder,

Oleksandr Maksymets, Roberto Martín-Martín, Roozbeh Mottaghi, Sonia Raychaudhuri, Mike Roberts, Silvio Savarese, Manolis Savva, Mohit Shridhar, Niko Sünderhauf, Andrew Szot, Ben Talbot, Joshua B Tenenbaum, Jesse Thomason, Alexander Toshev, Joanne Truong, Luca Weihs, Jiajun Wu. arXiv 2022.

Language-Aligned Waypoint (LAW) Supervision for Vision-and-Language Navigation in Continuous Environments.

S. Raychaudhuri, S. Wani, S. Patel, U. Jain, A. Chang. EMNLP 2021. [\[project\]](#)

Motion Annotation Programs: A Scalable Approach to Annotating Kinematic Articulations in Large 3D Shape Collections.

X. Xu, D. Charatan, S. Raychaudhuri, H. Jiang, M. Heitmann, V. Kim, S. Chaudhuri, M. Savva, A. Chang, and D. Ritchie. 3DV 2020. [\[project\]](#)

Academic  
Service / Peer  
Review

**Organizing Workshops**

Co-hosted [MultiON challenge](#) for [Embodied AI Workshop](#) at [CVPR 2022, 2023](#)

**Reviewing for International Conferences**

Women in Computer Vision Workshop at CVPR 2023

SIGGRAPH 2023

IEEE International Conference on Robotics and Automation (ICRA 2023)

International Conference on Intelligent Robots and Systems (IROS 2022)

**Organizing Student-led Groups**

Mentoring Graduate students as part of the Women in Computer Science (WiCS) in Fall 2022

Embodied-AI Reading Group at SFU in Spring 2022

Awards /  
Recognition

- Awarded Outstanding TA Award by the SFU School of Computing Science for 2022
- Amii AI Week Talent Bursary Recipient, 2022 [\[webpage\]](#)
- Selected for CRA-WP Grad Cohort for Women, 2022 [\[webpage\]](#)
- Graduate Fellowship, SFU, 2022
- Selected for CRA-WP Grad Cohort for Women, 2021 [\[webpage\]](#)
- Helmut & Hugo Eppich Family Graduate Scholarship, SFU, 2021
- Computing Science Graduate Fellowship, SFU, 2021
- Graduate Fellowship, SFU, 2021
- Graduate Fellowship, SFU, 2019

Industry  
Experience

Ericsson India Global Services Pvt. Ltd  
Senior Software Engineer (2011 – 2019)

Tata Consultancy Services Pvt. Ltd.  
Software Engineer (2007 – 2011)