

# SONIA RAYCHAUDHURI

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

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Canada

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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 [IIEST](#) Shibpur and thereafter worked with TCS and Ericsson as a Software Engineer, before deciding to pursue research in AI.

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## PUBLICATIONS

1. (Accepted in EMNLP2021) *Language-Aligned Waypoint (LAW) Supervision for Vision-and-Language Navigation in Continuous Environments*.  
Sonia Raychaudhuri, Saim Wani, Shivansh Patel, Unnat Jain, Angel X. Chang  
EMNLP 2021  
<https://3dlg-hcvc.github.io/LAW-VLNCE>
2. (Published) *Motion Annotation Programs: A Scalable Approach to Annotating Kinematic Articulations in Large 3D Shape Collections*.  
Xianghao Xu, David Charatan, Sonia Raychaudhuri, Hanxiao Jiang, Mae Heitmann, Vladimir Kim, Siddhartha Chaudhuri, Manolis Savva, Angel X. Chang, and Daniel Ritchie.  
3DV 2020.  
<http://visual.cs.brown.edu/projects/articulations-webpage>

## RESEARCH EXPERIENCE

**Research Assistant**, Simon Fraser University

April 2020 – Present

- Studying embodied AI agents in 3D environments, especially the contribution of semantic information to improve state-of-the-art performance in Vision and Language Navigation task in the continuous environments

**Research Assistant**, Simon Fraser University

Sept 2019 – Nov 2020

- Worked on a scalable approach for annotating articulations in large 3D shape collections
- Published work in 3DV 2020 conference

## TEACHING EXPERIENCE

### Teaching Assistant, Simon Fraser University

Sept 2021 – Dec 2021

- Working as a TA for the Natural Language Processing [course](#) for Fall 2021
- Responsibilities include holding tutorial sessions, designing and grading assignments, holding office hours to address student queries, among others.

### Teaching Assistant, Simon Fraser University

Jan 2021 – Apr 2021

- Working as a TA for the Grounded Natural Language Understanding [course](#) for Spring 2021
- Responsibilities include grading assignments, holding office hours to address student queries, among others.

### Teaching Assistant, Simon Fraser University

Sept 2020 – Dec 2020

- Working as a TA for the Natural Language Processing [course](#) for Fall 2020
- Responsibilities include holding tutorial sessions, designing and grading assignments, holding office hours to address student queries, among others.

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## EDUCATION

### Simon Fraser University

Computer Science, PhD

Graduating 2024

### IIST, Shibpur, India

Bachelor of Engineering in Information Technology

Graduated 2007

## ACADEMIC AWARDS

Helmut & Hugo Eppich Family Graduate Scholarship	SFU 2021
SFU Computing Science Graduate Fellowship (CMPT GF)	SFU 2021
Simon Fraser University Graduate Fellowship (SFU-GF)	SFU 2021
Simon Fraser University Graduate Fellowship (SFU-GF)	SFU 2019

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## INDUSTRY EXPERIENCE

### Senior Software Engineer, Ericsson India Global Services Pvt. Ltd

Dec 2011 – Aug 2019

Worked as a full-stack software developer (distributed web applications using Java/JEE), Solution Architect (leading delivery teams) and a Scrum Master (managing scrum and performing Scrum activities) ; involved in Technical Recruitment for the Organization and mentoring junior developers; a member of the IT Innovation Team, working on Emerging Technologies and researching on improvement areas in the Organization; awards include Rockstar Award for exceptional performance, Certificate for Exceptional Contribution to the project

from Project Sponsor, Certificate for Exceptional performer for incredible performance in the Organization

**Software Engineer, Tata Consultancy Services Pvt. Ltd.**

Nov 2007 - Dec 2011

Worked as a full-stack software developer (distributed web applications using Java/JEE) and Scrum Master (managing scrum and performing Scrum activities); awards include Certificate of Excellence for being Initial Learning Program (ILP) topper at TCS and Certificate for Exceptional Contribution to the Organization