

# Inyoung Ryu

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## INTERESTS

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Teichmuller Theory, Low-dimensional Topology, Geometric Group Theory

## EDUCATION

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### Texas A&M University

*Ph.D. in Mathematics*

Aug.2021 – Present

*Texas, US*

### Ulsan National Institute of Science and Technology(UNIST)

*Bachelor of Science in Mathematical Science*

Mar.2017 – Jul.2021

*Ulsan, Korea*

- Minor in Computer Science and Engineering
- Awarded Academic Performance Scholarships for seven out of seven semesters
- Total GPA of 3.99 / 4.3 (95.9 / 100)

### Sabancı University

*Exchange Student*

Feb. 2020 – Jun. 2020

*Istanbul, Turkey*

## RESEARCH/STUDY EXPERIENCES

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### Reading Course with Prof. Tian Yang

*Texas A&M University*

Feb. 2022 – May. 2022

*Texas, US*

- Knot Theory. Jones Polynomial and Alexander Polynomial

### Reading Course with Prof. Guoliang Yu

*Texas A&M University*

Feb. 2022 – May. 2022

*Texas, US*

- Higher index Theory

### Interdisciplinary Project

*Ulsan National Institute of Science and Technology*

Sep. 2020 – Feb. 2021

*Ulsan, Korea*

- Cooperating with Prof. Sun and two members to develop an understanding of Modular form
- Participating in the study of Modular curves as Riemann Surfaces
- Computed the dimension-counting formulas for spaces of modular forms, found the 1-dimensional specific cusp form space with the formula
- Seminars: ‘The Structure of Elliptic Curves’, ‘Modular Curves as Riemann Surfaces’, ‘Introduction to Automorphic forms & orders of functions on Modular curves’

### Undergraduate Research Assistant

*Ulsan National Institute of Science and Technology*

Jul. 2019 – Aug. 2019

*Ulsan, Korea*

- Cooperated with Prof. Jun to develop an understanding of Algebraic Topology
- Constructed an Atlas for Smooth Manifold and Computed Homology groups

## PARTICIPATED CONFERENCES/SEMINARS/FORUMS

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### The South Central Topology Conference

*Texas A&M University*

Sep. 2021

*Texas, US*

### Texas Geometry and Topology Conference

*The University of Texas at Dallas*

Feb.2022

*Texas, US*

### Graduate Student Topology and Geometry Conference

*Georgia Institute of Technology*

Apr. 2022

*Georgia, US*

### Arizona Winter School

Jan.2021-Feb.2021

*Arizona, US*

### International Congress of Mathematicians(ICM)

Aug. 2014

*Seoul, Korea*

## TEACHING EXPERIENCES

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### **Teaching Assistant(Engineering Math I)**

Aug. 2022 – Present

*Texas A&M University*

*Texas, US*

- Had a class twice a week for Three sections (Total more than 100 students)
- Supplementary lecture and Q & A session
- Taught Python, Supported problem solving in lab sessions
- Graded quizzes & lab homeworks

### **Teaching Assistant(Calculus I, Calculus II)**

Mar. 2018 – Dec. 2019

*Ulsan National Institute of Science and Technology*

*Ulsan, Korea*

- Supported problem solving in discussion sessions(approximately 100 students)
- Graded midterms & final exams

### **Calculus I Open Lecture**

6/2/2018

*Ulsan National Institute of Science and Technology*

*Ulsan, Korea*

## LEADERSHIP EXPERIENCES

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### **Treasurer**

Aug.2022 - May.2023

*Association for Women in Mathematics (Texas A&M, 60 members)*

*Texas, US*

- Women in Math Mentoring Lunch
- AWM peer mentoring program