

KINJAL PARIKH

<https://KinjalParikh.github.io>

Kinjal.Parikh@outlook.com ♦ (437)-973-1393

222 Elm Street, Toronto, Canada (M5T1K5)

RESEARCH INTERESTS

My research area is computer graphics and I am particularly interested in geometry processing. My current focus is on computing shape descriptors for analysis of 3D geometry. To this end, I am working on computing higher-order derivatives through the application of multilinear algebra.

EDUCATION

University of Toronto

Sept 2022 - Present

PhD in Computer Science at Dynamic Graphics Project

Advised by Prof. David Levin

Savitribai Phule Pune University

2017 - 2021

B.Tech. in Computer Engineering

RESEARCH

Summer Geometry Institute, Massachusetts Institute of Technology

July 2021 - Aug 2021

Summer Research Program

Acceptance rate: 5.4 %

- Topic: Optimal Interlocking Parts via Implicit Shape Optimizations
Mentor: Professor David Levin, Dept. of Computer Science, University of Toronto
- Topic: Self-similarity loss for shape descriptor learning in correspondence problems
Mentor: Dr. Tal Schnitzer, Dept. of Computer Science, Massachusetts Institute of Technology
- Topic: Learning Classifiers of Parametric Implicit Functions
Mentor: Dr. Matheus Gadelha, Adobe Research

Indian Institute of Technology, Bombay

May 2020 - July 2021

B.Tech. Research Project

Topic: Formalization of Translation Performed by the SCLP compiler phases

Advisor: Professor Uday Khedker, Dept. of Computer Engineering

(SCLP is a language processor used to teach UG courses CS302+CS316 at IIT Bombay)

- Developed a novel model of compilation that focuses on the intermediate representations produced by a compiler and their step-wise refinement.
- Created specifications for two intermediate representations and for the translation between them.
- Built a transpiler that can generate C++ code for translation between two intermediate representations from the translation specification we created

EXPERIENCE

University of Toronto

Sept 2023 - present

Teaching Assistant

- CSC108H1: Introduction to Computer Programming

Walmart Global Tech India

Aug 2021 - Aug 2022

Software Engineer

- Worked on several Java Springboot projects for logistic systems used in international markets.

Walmart Global Tech India

June 2020 - July 2020

Summer Intern

- Contributed to a project automating the calculation of key performance indicators for workflows. Used PySpark and Microsoft SQL.

Excellon Software

July 2019

Summer Intern

- Worked on creating a customer support chatbot.

AWARDS AND SCHOLARSHIPS

Wolfond Scholarship Program in Wireless Information Technology

2022-2024

University of Toronto

20,000 CAD

Seminar report on *Scene Graph Generation*

2020

Cummins College of Engineering

top 15 (out of 224) student seminars

Lady Ada National Programming Contest for Women

2019

ACM-W India

among top 10 finalists

Code-It Intra-college coding competition

2019, 2018

ACM-W College Chapter

1st rank

National Creative Aptitude Test

2018

International Forum for Excellence in Higher Education

all India 99.5th percentile in 1st round**PROJECTS**

NeRF

April 2023

- Reimplemented 'Nerf: Representing scenes as neural radiance fields for view synthesis'

Quasi-harmonic weights

Dec 2022

- Reimplemented the paper 'Fast Quasi-Harmonic Weights for Geometric Data Interpolation' by Yu Wang and Justin Solomon - using Python.

Normal-Driven Spherical Shape Analogies

July 2021

- Reimplemented the paper 'Normal-Driven Spherical Shape Analogies' by Hsueh-Ti Derek Liu and Alec Jacobson - using MATLAB.

Virtual Drumkit

May 2020

- Developed an application that simulates a Drumkit using OpenCV.

Augmented Reality Photo Booth App

Feb 2020

- Developed an Android application using Sceneform framework that allows users to take pictures with virtual 3D objects.

OUTREACH

Summer Geometry Institute - student volunteer

July 2023

- Organized social events
- Assisted students in their projects and coordinated with project mentors

Samyak Drishti Foundation NGO

2017 - 2020

- Taught basic English course to underprivileged school girls
- Organized and participated in various environmental and social drives.

Hour of Code

Dec 2018

- Volunteered in a drive for encouraging children to participate in computer science related activities.