Nisarg Patel

Curriculum Vitae

PERSONAL DETAILS

Web https://nisargrp.github.io
E-Mail nisargrp2@gmail.com

WORK EXPERIENCE

Certora, Inc. Aug 2024- Present
- Formal Verification Researcher

New York University Aug 2018 - Aug 2024
Advisor: Prof. Thomas Wies
- PhD Student

Nokia Bell Labs (Research Intern) June 2021- Aug 2021
Mentors: Dr. Kedar Namjoshi
- Program Synthesis using SAT/QBF-solvers

Nokia Bell Labs (Research Intern) June 2020- Aug 2020
Mentors: Dr. Kedar Namjoshi
- Synthesis of Compact Strategies for Coordination Programs

Universite Paris Diderot (Research Intern) May 2017- July 2017
Mentors: Prof. Ahmed Bouajjani, Prof. Constantin Enea and Prof. Madhavan Mukund
- Verification of Web Services.

PUBLICATIONS

- **Raven: An SMT-Based Concurrency Verifier**
  Ekanshdeep Gupta, Nisarg Patel and Thomas Wies
  Computer Aided Verification (CAV), 2025

- **Verifying Lock-free Search Structure Templates**
  Nisarg Patel, Dennis Shasha and Thomas Wies
  European Conference on Object-Oriented Programming (ECOOP), 2024

- **Synthesis of Compact Strategies for Coordination Programs**
  Kedar Namjoshi and Nisarg Patel
  Tools and Algorithms for the Construction and Analysis of Systems (TACAS), 2022

- **Verifying Concurrent Multicopy Search Structures**
  Nisarg Patel, Siddharth Krishna, Dennis Shasha and Thomas Wies
  Object-Oriented Programming Systems Languages and Applications (OOPSLA), 2021

- **Automated Verification of Concurrent Search Structures**
  Siddharth Krishna, Nisarg Patel, Dennis Shasha and Thomas Wies

Morgan & Claypool Publishers, 2021

- **Verifying Concurrent Search Structure Templates**
  Siddharth Krishna, Nisarg Patel, Dennis Shasha and Thomas Wies
  Programming Languages Design and Implementation (PLDI), 2020

EDUCATION

PhD in Computer Science August 2018 - Present
New York University, New York, USA *CGPA - 3.914/4*
Advisor: Prof. Thomas Wies

MSc in Computer Science August 2016 - July 2018
Chennai Mathematical Institute, Chennai, India *CGPA - 9.62/10*

BSc in Mathematics and Computer Science August 2013 - July 2016
Chennai Mathematical Institute, Chennai, India *CGPA - 8.64/10*

TEACHING EXPERIENCE

- *TA*: Programming Languages, New York University, September-December 2022
- *TA*: Programming Languages, New York University, September-December 2021
- *TA*: Data Mining and Machine Learning, Chennai Mathematical Institute, August-November 2017.

AWARDS AND SCHOLARSHIPS

- **Chennai Mathematical Institute Scholarship** for academic excellence.
- **INSPIRE Scholarship by Government of India** for distinction in Sciences.
- **Conferences/Summer Schools**
  VMCAI Winter School Scholarship (2020)
  Marktoberdorf Summer School Travel Grant (2019)
  CAV Student Volunteer (2019)