# Dhriti Khanna

115, CGHS Society
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dhritikhanna.github.io

**Research area**: Program analysis, Dynamic verification, Constraint solving
**Thesis title**: Verifying and Testing Concurrent Programs using Constraint Solver based Approaches

## EXPERIENCE

**IIIT Delhi,** India — *Teaching Assistant*
August 2015 - November 2016
Program analysis, Data Structures and Algorithms, Advanced Programming

**University of Delhi,** India — *Assistant Professor*
January 2013 - April 2015
Taught undergraduate courses

**Nagarro,** Gurugram, India — *Software Engineer*
July 2012 - December 2012
Worked in a team developing ERP software in .NET and Silverlight technologies

## EDUCATION

**IIIT Delhi,** India — *Ph.D.*
August 2015 - Present
Advisors: Dr. Rahul Purandare, Dr. Subodh Sharma
CGPA: 9.0

**University of Delhi, India** — *M.Sc. CS*
August 2010 - July 2012
Advisors: Dr. Vasudha Bhatnagar, Dr. Sharanjit Kaur
Percentage: 82.85

## TECHNICAL EXPOSURE

- Soot: Static analysis for Java
- SPF: Symbolic execution
- Z3: SMT Constraint solver
- ISP: Dynamic verification
- PIN: Dynamic binary instrumentation framework

## AWARDS AND ACHIEVEMENTS

**Ph.D. fellowship award** for four years by TCS Research (2016)

**Cleared national engineering aptitude test GATE** with a nationwide rank of 1356 (2015)

**Cleared National Eligibility Test for lectureship** in June 2012

## REFERENCES

**Rahul Purandare, Ph.D.**
Associate Professor, IIIT Delhi
purandare@iiitd.ac.in

**Subodh Sharma, Ph.D.**
Assistant Professor, IIT Delhi
svs@cse.iitd.ac.in

**Vasudha Bhatnagar, Ph.D.**
Associate Professor, University of Delhi
vbhatnagar@cs.du.ac.in

## PUBLICATIONS

Please see the next page.

## PUBLICATIONS

- Dhriti Khanna, Rahul Purandare, and Subodh Sharma. 2021. Synthesizing Multi-threaded Tests from Sequential Traces to Detect Communication Deadlocks. To appear, **ICST'21.**
- Dhriti Khanna, Rahul Purandare, Subodh Sharma. 2020. Verifying and Testing Concurrent Programs using Constraint Solver-based Approaches. In the Doctoral Symposium, **ICSME'20.**
- Dhriti Khanna, Subodh Sharma, C´esar Rodŕıguez, and Rahul Purandare. 2018. Dynamic Symbolic Verification of MPI Programs. In **FM'18**, 466–484.
- Dhriti Khanna. 2018. Analysis and Verification of Message Passing based Parallel Programs. In the Doctoral Symposium, **FLoC'18.**
- Sukrit Kalra, Ayush Goel, Dhriti Khanna, Mohan Dhawan, Subodh Sharma, and Rahul Purandare. 2016. POLLUX: safely upgrading dependent application libraries. In **FSE'16**, 290–300.