# Siddhesh Chaubal

Department of Computer Science, UT Austin, Texas.

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#### RESEARCH INTERESTS

Machine Learning, Transfer Learning, Supervised Learning, Complexity Theory

## **EDUCATION**

The University of Texas at Austin

PhD candidate in Computer Science Department

Advisor: Prof. Anna Gal

Thesis: Complexity Measures of Boolean Functions and their Applications

Indian Institute of Technology Bombay, Mumbai

B.Tech. in Computer Science, Minor in Mathematics

July 2009-April 2013 GPA: 9.75/10.0

Expected: December 2020

GPA: 3.96/4.0

May-Nov 2019

## WORK EXPERIENCE

Machine Learning Research Intern

Nokia Bell Labs, Dublin

Supervisors: Dr. Patrick Nicholson, Dr. Alessandra Sala

**Topic**: Transfer Learning in Decision Trees

Research Intern May-July, 2012

IST Austria

Supervisors: Prof. Krishnendu Chatterjee, Dr. Sasha Rubin

**Topic**: Travelling between regular languages

Research Intern May-July, 2011

IST Austria

Supervisor: Prof. Krishnendu Chatterjee

**Topic**: Faster Algorithms for Alternating Refinement relations

## **PUBLICATIONS**

 Transfer Learning Algorithms for Regression Forests Siddhesh Chaubal, Patrick K. Nicholson Under review, 2020.

- Transfer Learning in Decision Trees using Geometric Optimization
  Siddhesh Chaubal, Mateusz Rzepecki, Patrick K. Nicholson, Guangyuan Piao, Alessandra Sala Under review, 2020.
- Tight Bounds on Sensitivity and Block Sensitivity of Some Classes of Transitive Functions Siddhesh Chaubal, Anna Gal
   Latin American Theoretical Informatics Symposium (LATIN), 2020.
- New Constructions with Quadratic Separation between Sensitivity and Block Sensitivity Siddhesh Chaubal, Anna Gal

Foundations of Software Technology and Theoretical Computer Science (FSTTCS), 2018.

- How to travel between languages
  Krishnendu Chatterjee, Siddhesh Chaubal, Sasha Rubin
  Language and Automata Theory and Applications (LATA), 2013
- Faster Algorithms For Alternating Refinement Relations Krishnendu Chatterjee, Siddhesh Chaubal, Pritish Kamath Computer Science Logic (CSL), 2012.

#### **AWARDS**

- Graduate School Summer Fellowship at UT Austin for 2020.
- Travel award at UT Austin for FSTTCS 2018.
- Dean's Excellence Award at UT Austin for 2013-14.
- The **Institute Academic Prize** at IIT Bombay for excellence in academics for 2010-11 and 2011-12.
- Dr. Winifred Fernandes fellowship for standing  $3^{rd}$  in the Computer Science department at IIT Bombay.
- Secured All India Rank 70 in IIT Joint Entrance Exam 2009 from about 400,000 aspirants.

#### COURSES COMPLETED AT UT AUSTIN

- Learning Theory
- Randomized Algorithms
- Combinatorics and Graph Theory
- Coding Theory
- Information Theory
- Communication Complexity
- Machine Learning
- Programming Languages
- Numerical Analysis: Linear Algebra

## **TEACHING**

Teaching Assistant, Algorithms and Complexity,

Teaching Assistant, Combinatorics and Graph Theory,

Teaching Assistant, Generic Programming,

Teaching Assistant, Software Engineering,

Teaching Assistant, Object Oriented Programming,

Fall '13, Spring '14, Fall '14, Spring '15, Fall '16, Spring '19 Fall '15, Spring '18 Summer '16, Summer '17 Summer '17, Summer '18

Fall '18, Spring '19, Spring '20

## **MENTORING**

Mentored 6 sophomore students as part of the Academic Mentorship Program in the Computer Science department at IIT Bombay in 2012-13.

### PROGRAMMING SKILLS

Python, Java, C++, C, Scheme (Lisp), Haskell, MATLAB