## Vaibhav Krishan

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Personal email: vaibhkrishan@gmail.com Official emails: vaibhavk@imsc.res.in

Profile pages: Homepage, DBLP, Google Scholar, ECCC (Personal account), ORCID

#### Research Positions

Postdoctoral Fellow The Institute of Mathematical Sciences, Chennai 2024-Present

COMPUTER SCIENCE

#### EDUCATION

**Doctoral Student** Indian Institute of Technology Bombay 2017-2024

COMPUTER SCIENCE CPI: 9.09/10

AND ENGINEERING

Bachelor of Technology Indian Institute of Technology Bombay 2009-2013

COMPUTER SCIENCE CPI: 7.59/10

AND ENGINEERING

#### Journal Publications

# Algorithmica 2022

A #SAT Algorithm for Small Constant-depth Circuits with PTF gates

with Swapnam Bajpai, Deepanshu Kush, Nutan Limaye and Srikanth

Srinivasan

Algorithmica 84, 1132-1162 (2022).

#### Conference Publications

CSR 2021 Upper Bound for Torus Polynomials

The 16th International Computer Science Symposium in Russia, CSR

2021.

ITCS 2019 A #SAT Algorithm for Small Constant-depth Circuits with PTF gates

with Swapnam Bajpai, Deepanshu Kush, Nutan Limaye and Srikanth

Srinivasan

The 10th 10th Innovations in Theoretical Computer Science Conference,

ITCS 2019.

#### Preprints

ECCC Towards ACC Lower Bounds using Torus Polynomials

with Sundar Vishwanathan

ECCC MidBit<sup>+</sup>, Torus Polynomials and Non-classical Polynomials: Equiva-

lences for ACC Lower Bounds

ECCC Isolation Lemma for Directed Reachability and NL vs. L

with Nutan Limaye

### Talks and Presentations

Presentation | Upper Bound for Torus Polynomials

The 16th International Computer Science Symposium in Russia, CSR

2021. (online)

Presentation and Poster

A #SAT Algorithm for Small Constant-depth Circuits with PTF gates The 10th Innovations in Theoretical Computer Science Conference, ITCS

2019

#### SERVICE AND ENGAGEMENT

Sub-reviewer | Computational Complexity Conference (CCC) 2024.

Sub-reviewer Foundations of Software Technology and Theoretical Computer Science

(FSTTCS) 2024

Volunteer FSTTCS 2019

## TEACHING ASSISTANCE

• Awarded best TA of the month for Automata Theory.

• Awarded best TA for CS 101.

#### Professional Experience

• As Quantitative Strategy Developer for around 3.5 years.

• As Data Scientist for around 1 year.

• As Software Engineer for around 6 months.

## Personal Details

D.O.B.  $09^{\text{th}}$  December 1993

Sex Male Nationality Indian