

# Vaibhav KRISHAN

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Profile pages: [Homepage](#), [DBLP](#), [Google Scholar](#), [ECCC \(Personal account\)](#), [ORCID](#)

## RESEARCH POSITIONS

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**PDF (TCS)** The Institute of Mathematical Sciences July 2024-Present

## EDUCATION

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<b>Ph.D.</b> COMPUTER SCIENCE AND ENGINEERING	Indian Institute of Technology Bombay Advised by Prof. Sundar Vishwanathan and Prof. Nutan Limaye	July 2017-May 2024
<b>B.Tech.</b> COMPUTER SCIENCE AND ENGINEERING	Indian Institute of Technology Bombay CPI: 7.59/10	July 2009-May 2013

## JOURNAL PUBLICATIONS

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**Algorithmica** A #SAT Algorithm for Small Constant-depth Circuits with PTF gates with S. Bajpai, D. Kush, N. Limaye and S. Srinivasan  
Algorithmica 84, 1132-1162 (2022).

## CONFERENCE PUBLICATIONS

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<b>ITCS 2026</b>	Lower Bounds and Separations for Torus Polynomials with S. Vishwanathan The 17 <sup>th</sup> Innovations in Theoretical Computer Science Conference, 2026 (to appear).
<b>CSR 2021</b>	Upper Bound for Torus Polynomials The 16th International Computer Science Symposium in Russia, 2021.
<b>ITCS 2019</b>	A #SAT Algorithm for Small Constant-depth Circuits with PTF gates with S. Bajpai, D. Kush, N. Limaye and S. Srinivasan The 10 <sup>th</sup> Innovations in Theoretical Computer Science Conference, 2019.

## PREPRINTS

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**ECCC** Isolation Lemma for Directed Reachability and NL vs. L  
with N. Limaye

## TALKS AND PRESENTATIONS

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Lecture	Polynomials and Computation Foundational Lecture Series on TCS, IMSc, 2025.
Presentation	Upper Bound for Torus Polynomials CSR 2021. (online)
Presentation and Poster	A #SAT Algorithm for Small Constant-depth Circuits with PTF gates ITCS 2019.

## SERVICE AND ENGAGEMENT

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Sub-reviewer	Computational Complexity Conference (CCC) 2024.
Sub-reviewer	Foundations of Software Technology and Theoretical Computer Science (FSTTCS) 2024
Volunteer	FSTTCS 2019

## TEACHING ASSISTANCE

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- Awarded best TA of the semester for CS 101.
- Awarded best TA of the month for Automata Theory.
- TA duty for complexity theory twice, design and analysis of algorithms, combinatorics, and theoretical machine learning.

## PROFESSIONAL EXPERIENCE

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- Freelance work in quantitative trading for multiple clients since May '22.
- Quantitative Research Consultant for AlphaGrep, and for 5-Swans, during official break from PhD June '21-May '22.
- As Quantitative Developer in AlphaGrep from June '16-July 17 and Jan '14-April '15.
- As Data Scientist in Housing.com from May '15-May '16.
- As Software Engineer in Samsung from July '13-Dec '13.

## PERSONAL DETAILS

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D.O.B.      09<sup>th</sup> December 1993  
Sex            Male  
Nationality   Indian