Siddhartha Jain

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Education

2020 - 2022 **MSc. in Computer Science**
École Polytechnique Fédérale de Lausanne (EPFL)

2016 - 2020 **BTech. in Computer Science & Applied Mathematics**
Indraprastha Institute of Information Technology (IIITD)

Publications

FOCS'21 (Invited to Special Issue) **Unambiguous DNFs and Alon-Saks-Seymour**
with Mika Göös (EPFL), Shalev Ben-David (UWaterloo), Robin Kothari (Microsoft Research), Kaspars Balodis (ULatvia)

In submission **Further Collapses in TFNP**
with Mika Göös, Gilbert Maystre (EPFL), Alexandros Hollender (Oxford), Robert Robere, Ran Tao, William Pires (McGill)
We show the surprising collapse: EOPL = PLS ∩ PPAD. A talk by Mika on Nov 22.

In preparation **Separations in Proof Complexity and TFNP**
with Mika Göös, Gilbert Maystre (EPFL), Alexandros Hollender (Oxford), Robert Robere, Ran Tao, William Pires (McGill)
We show new oracle separations for TFNP subclasses.

In preparation **Communication Complexity of Collision**
with Mika Göös (EPFL)
We prove a polynomial lower bound for a natural two party version of the Collision problem: decide whether a given function is 2-1 or 1-1.

Projects

Unsupervised Preprocessing for Clustering
with Shay Ben-Elazar (Microsoft Research), Vincent Cohen-Addad (Google Research), Karthik CS (Rutgers)

Probabilistic & Interactive Proofs
with Alessandro Chiesa (UC Berkeley, EPFL)

Employment

2021-2022 **MSc. Research Scholar | EPFL**
Part of the Research Scholar program by the IC department, working with Mika Göös (EPFL).

2019 **Research Intern | ITCS Shanghai**
Summer intern with Bundit Laekhanukit (SUFE).

Honors & Awards

2021	Paper invited to SICOMP Special Issue of FOCS 2021
2021	MSc. Research Scholar (EPFL)
2020	Graduation with Honors (IIITD)
2019	Scholarship: Quantum Computation Winter school (IIAS)
2019	Scholarship: Data Science Summer school (IISc)
2019	Dean's list (IIITD)

Miscellaneous

Languages	**Hindi:** native **English:** fluent (written and spoken) **French:** some
Programming	Python, LaTeX, Java (some), scala (some)
Service	ICALP22
Coursework (EPFL)	Advanced Algorithms (6/6), Probabilistic Methods in Combinatorics (5.75/6), Computational Complexity (6/6), Information Theory & Coding (6/6)
Coursework (IIITD)	Modern Algorithm Design (A), Randomised Algorithms (A-), Combinatorics and Its Applications (A), Complexity Theory (A), Theory of Computation (A), Discrete Structures (A), Abstract Algebra (A), Number Theory (A+)