

Siddhartha Jain

Lausanne, Switzerland

✉ siddhartha.jain@epfl.ch

🏠 sidjain.me

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)
CCC'22	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: $\text{EoPL} = \text{PLS} \cap \text{PPAD}$. A talk by Mika on Nov 22.
In submission	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 and characterisations for TFNP subclasses.
In submission	Communication Complexity of Collision with Mika Göös (EPFL) We prove a polynomial randomised communication 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) Working on practical preprocessing algorithms inspired by error-correcting codes.
Probabilistic & Interactive Proofs with Alessandro Chiesa (UC Berkeley, EPFL) Semester project which involved studying both classical and modern results in Probabilistic Proofs.

Employment

2021-2022	MSc. Research Scholar EPFL Part of the Research Scholar program by the IC department, working with Mika Göös (EPFL).
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2019

Research Intern | ITCS Shanghai

Summer intern with Bundit Laekhanukit (SUFU).

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 (IIISc)
2019	Dean's list (IIITD)

Miscellaneous

Languages	Hindi: native English: fluent (written and spoken) French: beginner
Programming	Python, \LaTeX , Java (intermediate), scala (intermediate)
Service (external reviewer)	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+)