# Siddhartha Jain

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## Education

| 2022 - present | **PhD. in Computer Science** <br> The University of Texas at Austin (UT Austin) |
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| 2020 - 2022 | **MSc. in Computer Science** <br> École Polytechnique Fédérale de Lausanne (EPFL) |
| 2016 - 2020 | **BTech. in Computer Science & Applied Mathematics** <br> Indraprastha Institute of Information Technology (IIITD) |

## Publications

| FOCS'21 (Invited to Special Issue) | **Unambiguous DNFs and Alon-Saks-Seymour** <br> with Mika Göös (EPFL), Shalev Ben-David (UWaterloo), Robin Kothari (Microsoft Research), Kaspars Balodis (ULatvia) |
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| CCC'22 | **Further Collapses in TFNP** <br> with Mika Göös, Gilbert Maystre (EPFL), Alexandros Hollender (Oxford), Robert Robere, Ran Tao, William Pires (McGill) <br> We show the surprising collapse: $\mathrm{EoPL} = \mathrm{PLS} \cap \mathrm{PPAD}$. A talk by Mika on Nov 22. |
| FOCS'22 | **Separations in Proof Complexity and TFNP** <br> with Mika Göös, Gilbert Maystre (EPFL), Alexandros Hollender (Oxford), Robert Robere, Ran Tao, William Pires (McGill) <br> We show new oracle separations and characterisations for TFNP subclasses. |
| RANDOM'22 | **Communication Complexity of Collision** <br> with Mika Göös (EPFL) <br> 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

| 2022 - present | **Graduate Research Assistant \| UT Austin**<br>Working at QIC with Scott Aaronson. |
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| 2021 - 2022 | **MSc. Research Scholar \| EPFL**<br>Part of the Research Scholar program by the IC department, working with Mika Göös (EPFL). |
| 2019 | **Research Intern \| ITCS Shanghai**<br>Summer intern with Bundit Laekhanukit (SUFE). |

# Honors & Awards

| 2021 | Paper invited to SICOMP Special Issue of FOCS 2021 |
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| 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<br>**English:** fluent (written and spoken)<br>**French:** beginner |
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| 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+) |