Last updated: February 20, 2024

Second-Year Ph.D. Candidate, School of Computer and Communication Sciences, EPFL Z

## Research Interests

## Information and coding theory and applied probability, particularly in learning and communication systems

## Education

EPFL, Ph.D. in Computer and Communication Sciences

Advisor: Prof. Emre Telatar; CGPA: 5.95/6

Lausanne, Switzerland Sep. 2022-Present

Indian Institute of Technology Bombay, B.Tech. in Electrical Engineering

With Honors in Electrical Engineering and Minor in Mathematics; CGPA: 9.60/10

Mumbai, India Jul. 2018-May 2022

## Selected Publications

(see **③**/publications or **p** for full list)

#### Conference papers

- F. Z. Faizal, A. G., et al., "ICQ: A quantization scheme for best-arm identification over bit-constrained channels," in International Symposium on Modeling and Optimization in Mobile, Ad Hoc, and Wireless Networks (WiOpt), 2023 Z
- S. Sharma, A.G., et al., "Theoretical analysis of an inverse Radon transform based multicomponent micro-Doppler parameter estimation algorithm," in National Conference on Communications (NCC), 2022

## **Preprints**

· A. V. Makkuva, M. Bondaschi, A. G., et al., "Attention with Markov: A framework for principled analysis of transformers via Markov chains," in arXiv cs.LG, 2024

## Awards and Academic Achievements

| • Grade 6.0 (exceptional performance, over 95%) in four courses at EPFL                            | [2022–present] |
|--|----------------|
| • IITB Institute Academic Prize for being the second-best academic performer in the EE department  | [2020-21]      |
| • IITB Undergraduate Research Award (URA01) for work done in Radar Signal Processing               | [2020]         |
| • AP grades (top 2%) in Digital Communications, Data Analysis at IITB                              | [2021, 2019]   |
| • Urvish Medh Memorial Prize for being the highest-ranked student in the EE department at IITB     | [2018]         |
| • All-India Ranks of 43 in JEE (Advanced) and 55 in JEE (Main)                                     | [2018]         |
| • Kishore Vaigyanik Protsahan Yojana (KVPY) fellowship from IISc following an All-India Rank of 35 | [2016]         |
|  |                |

# Teaching, Mentoring and Service

| • Reviewer for conferences and workshops: ICML NCW '23, ISIT '24                                     | [2024–present] |
|--|----------------|
| • Teaching Assistant for Principles of Digital Communications, Information Theory and Coding at EPFL | [2022–present] |
| • Teaching Assistant for undergraduate calculus and electromagnetism courses at IITB (4 times)       | [2019–22]      |
| • Institute Student Mentor for first-year undergraduates at IITB                                     | [2021–22]      |
| • Summer of Science mentor at IITB for signal processing, coding theory, information theory          | [2020-23]      |
| • Class Representative for the 2018–22 B.Tech. in EE batch at IITB                                   | [2018–19]      |

## Extracurriculars

| • Intermediate course in Table Tennis under the National Sports Organization at IITB      | [2018–19] |
|---|-----------|
| Best All-Rounder on graduation from Ryan International School Bangalore                   | [2016]    |
| • Deputy Education Minister in the Student Council at Ryan International School Bangalore | [2014–15] |
| Completed 19 credits in electronic keyboard from the Trinity College of Music London      | [2007–13] |