Debarghya GHOSHDASTIDAR.

Technical University of Munich

Assistant Professorship of Theoretical Foundations of Artificial Intelligence

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Personal information Date of birth: 27.08.1987

Nationality: Indian

Gender: Male

Family status: Married (no children) Languages spoken: English, Hindi (fluent); German (intermediate); Bengali (native)

2024

Positions

Assistant Professor (W2, Tenure Track), Technical University of Munich, School of Computation Information and Technology since Sep 2019

POSTDOCTORAL RESEARCHER / JUNIOR RESEARCH GROUP LEADER (E13-E14), May 2016 - Aug 2019 University of Tübingen, Department of Computer Science

Education

Ph.D. (Computer Science), Indian Institute of Science Jan 2017 (in top 2)

MASTER (M.E. SYSTEM SCIENCE), Indian Institute of Science Jul 2012 (topper) BACHELOR (B.E. ELECTRICAL), Jadavpur University, India Jul 2010 (top 4%)

Awards, Fellowships, & Paper Awards Best paper award at AdvML-Frontiers@NeurIPS'24 Workshop 2024

PAIRED EARLY CAREER RESEARCH FELLOWSHIP, Indo-German Science and Technology Center 2023

Fellow in Eliteprogramm für Postdocs, Baden-Württemberg Stiftung 2017

GOOGLE INDIA PH.D. FELLOW in statistical learning theory 2013

N. R. KHAMBATI MEDAL for best Masters student in Department of Electrical Engineering, Indian Institute of Science 2012

S. K. BASU MEDAL for highest marks in laboratory and practical examinations of Bachelors (Electrical) in Jadavpur University 2010

Other notable achievements

Distinguished conference publications: ICLR-2025 (spotlight, top 5%), AISTATS-2021 (oral, top 3%), AAAI-2015 (top 11%)

Scored A in Step 2 of ERC STARTING GRANT (not funded)

Nominated for ACM India Doctoral dissertation award 2017

ALL INDIA RANK 4 (out of 52000 candidates) in Graduate Aptitude Test in Engineering (Electrical), India

Research grants (selected; total over 1.5 M€)

DFG PRIORITY PROGRAM: Theory of Deep Learning. Sole PI for projects Statistical foundations of unsupervised and semi-supervised deep learning (275 k€); Statistical foundations of semi-supervised learning with graphNNs (310 k€)

NEMETSCHEK INNOVATION FOUNDATION GRANT, funded through TUM GNI. Breaking into the black box of ESG in the building sector: A machine learning approach Co-PI with B. Zhu, 700k€ (personal share **345** k€), 2024 - 2027

GERMAN RESEARCH FOUNDATION (DFG) RESEARCH GRANT. Statistical, computational and algorithmic aspects of kernel clustering. PI (Sole), 309 k€, 2022–2025

FRENCH-GERMAN (ANR-DFG) JOINT PROJECT. Active and batch Segmentation, Clustering, and seriation: toward unified foundations in AI. Co-PI with A. Carpentier, N. Verzelen, E. Gassiat, approx 550 k€ (personal share 112 k€),

DFG RESEARCH TRAINING GROUP. Continuous verification of cyber-physical systems. One of 11 PIs (spokesperson: D. Beyer), total fund 20 M€ 2019 - 2027

Publications

36 PEER-REVIEWED PUBLICATIONS:

- 13 journal papers (2×Ann. Stat.; 1×JMLR; 4×TMLR; 1×Automatica)
- -23 conference papers (6×NeurIPS; 4×AAAI; 4×AISTATS; 1×CVPR; 1×ICML)
- 15 first-author publications; 15 papers as PhD advisor of first author
- Over 850 citations with h-index 13 (list at Google Scholar, ID: Kp-enVQAAAJ)

Students advised, Postdocs hosted

DOCTORAL STUDENTS:

Leena Chennuru Vankadara (2018–2022, co-advised with U. von Luxburg, Tübingen); Pascal Mattia Esser (2019–2023); Mahalakshmi Sabanayagam (since 2021);

Maximillian Fleissner (since 2022); Maedeh Zarvandi (since 2023); Alexandru

Craciun (since 2024); Nil Ayday (since 2024)

POSTDOCS HOSTED: Satyaki Mukherjee (2022–2023); Pascal Mattia Esser (2024)

Further supervised/examined 25+ Master/Bachelor theses, internships, projects

Teaching

LECTURES:

Statistical foundations of learning (since 2019); Gems of informatics 3 (since 2020); Complexity theory (since 2021); Fundamental algorithms (2022); Efficient algorithms and data structures (2020); Statistical network analysis (2018)

SEMINARS / PRACTICAL COURSES:

Theoretical advances in deep learning (since 2020); Analysis of new phenomena in machine/deep learning (since 2022); Advanced complexity theory (2021); Machine learning theory (2016–2018)

Invited / Keynote talks (selected)

AI Hub@Karlsruhe 2022 (keynote); CMStatistics 2021, 2023; Google Algorithms seminar 2020; International Summit on Data Science & AI 2020; Conference on Random matrix theory 2019: Dagstuhl seminar on Foundations of unsupervised learning 2016; ACM-IKDD CoDS 2015

Professional duties

EDITORIAL BOARD:

Associate Editor, Electronic Journal of Statistics (2-25-2027)

SENIOR PROGRAM COMMITTEE (CONFERENCES): ICML 2025; ALT 2024, 2025

WORKSHOP ORGANISATION:

Organisd session at CMStatistics 2023; CMStatistics 2024

Main organiser of 2nd ASCAI workshop, funded by DFG-ANR, Munich 2023 Scientific advisory board member in IGSTC Indo-German Workshop on AI, 2021

Association with organisations:

Fellow and Selection Committee, Konrad Zuse School of Excellence in Reliable AI Member, TUM Munich Data Science Institute

Member, European Laboratory for Learning and Intelligent Systems (ELLIS)

Advisory board, International AIQT Foundation, Switzerland

GRANT REVIEWING: German Research Foundation; Czech Science Foundation; UN-ESCO The World Academy of Sciences; Vienna Science and Technology Fund

REVIEWING: 10+ conferences (including COLT, NeurIPS, ICML, ICLR, AISTATS); 14+ journals (including Ann. Stat., JMLR, JRSS, IEEE TIT, IEEE TSP, Automatica, Lin. Alg. Appl.)

CONTRIBUTION TOWARDS DIVERSITY AND GENDER EQUALITY: Deputy Gender Equality Officer, TUM School of CIT (since 2021) Assistance to student group: Women in CS at TUM (2021–2024)

Further training

TEACHING TRAINING: Certification for teaching in higher education (Bavarian universities); Resilience in teaching; Blended learning • WORKSHOP: Diversity in teams; Leadership & mental health; Science communication