

Amartya Basu

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Education

- 2025– **PhD in Computer Science**, SUNY Stony Brook, New York, USA.
Advisor: Dr. Shubham Jain
- 2022–25 **MS in Computer Science & Engineering**, IIT Madras, Chennai, India.
Thesis: Mapping Pervasive Environments using Radio Tomography and Neural Radiance Field.
Advisor: Dr. Ayon Chakraborty
- 2016–20 **B.Tech in Computer Science & Engineering**, Government College of Engineering and Leather Technology, Kolkata, India.

Awards and Achievements

- Received the Research Excellence Award from IIT Madras.
- Received Pre-Incubation funding from NIRMANN, IIT Madras (Jul-Nov'24 cohort) to prototype UbiqMap.
- Received the Institute Research (IR) Award, IIT Madras (**sole recipient in MS category, Jul-Nov'24**).
- Received Travel Grant Award for IITB CSE Research Symposium 2023.
- Received Travel Grant Award for ACM SIGMETRICS/ PERFORMANCE 2022.
- Secured 98.58 percentile out of ≈ 1 lakh candidates in GATE (CS) 2020.

Experience

- 2025– **Research Assistant**, Stony Brook University, NY, USA.
Pervasive Computing and Smart Sensing (PiCASSo) Lab, Department of Computer Science.
- 2022–24 **Research Assistant**, IIT Madras, Chennai, India.
SeNSE Lab, Department of Computer Science & Engineering.
- 2020–21 **Assistant System Engineer**, Tata Consultancy Services, Kolkata, India.
- Summer 2019 **Web Development Intern**, ITC Infotech, Kolkata, India.

Publications

- AIoT'24** **SpecNeRF: Neural Radiance Field Driven Wireless Coverage Mapping for 5G Networks.**
Amartya Basu and Ayon Chakraborty.
AIoT in conjunction with ACM MobiHoc 2024.
- IEEE TMC'24** **Ubiquitous Indoor Mapping using Mobile Radio Tomography.**
Amartya Basu, Ayon Chakraborty and Kush Jajal.
IEEE Transactions on Mobile Computing, Vol.23, No.12, 2024.

Patents

1. A System and Method for Mapping Indoor Spaces in Real-time.

Ayon Chakraborty and Amartya Basu. [Granted- 567451 \(India\).](#)

Press Coverage

■ Ubiquitous Indoor Mapping using Mobile Radio Tomography:

Times of India, Hindustan Times, The Hindu, India Today.

Professional Services

■ Journal Reviewer

- IEEE Transactions on Visualization and Computer Graphics- 2025.
- IEEE Transactions on Mobile Computing- 2025, 2024.
- Ad-Hoc Networks (Elsevier)- 2025, 2024.

■ Artifact Evaluation Committee

- ACM International Conference on emerging Networking Experiments and Technologies (CoNEXT 2025).
- ACM International Conference on Mobile Systems, Applications, and Services (MobiSys 2025).
- ACM Conference on Embedded Networked Sensor Systems (SenSys 2024).

■ Conference Activities

- Web chair of SOCIETY workshop in con-junction with ICDCN'25, IIT Hyderabad, India.
- Volunteer for the ICDCN'24 conference, IIT Madras, India.

■ Institute Activities

- Organizer of CSE Bits monthly event in the Department of CSE, IIT Madras- 2023.
- Subject matter expert for GATE CS NPTEL- 2022. 

Subjects: Operating System, Computer Networks, Computer Organization and Architecture.

Teaching Assistantships

Jul-Nov, 2024 Smart Sensing for Internet of Things (*Graduate level*).

Instructor : Dr. Ayon Chakraborty.

Jan-May, 2024 Advanced Data Structures and Algorithm (*Graduate level*).

Instructor : Dr. C Pandu Rangan.

Jul-Nov, 2022 Foundation for Computer System Design (*Undergraduate level*).

Instructor : Dr. Ayon Chakraborty.