Amartya Basu

PhD student, Dept. of Computer Science,
SUNY Stony Brook

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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 $\approx$ 1 lakh candidates.

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).

Professional Services

Journal Reviewer

- Ad-Hoc Networks (Elsevier)- 2025, 2024.
- IEEE Transactions on Mobile Computing- 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.*

Press Coverage

Ubiquitous Indoor Mapping using Mobile Radio Tomography:

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