

Amartya Basu

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

NCS 330, Dept. of Computer Science
SUNY Stony Brook, New York, USA.

✉ ambasu@cs.stonybrook.edu

🌐 [amartya-pixel.github.io](https://github.com/amartya-pixel)

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

- Tanmay Srivastava, **Amartya Basu**, Shubham Jain. *Beyond-Voice: Leveraging Articulatory Motion for Next-Gen AI Assistants*. 27th [International Workshop on Mobile Computing Systems and Applications \(HotMobile 2026\)](#).
- **Amartya Basu**, Ayon Chakraborty. *SpecNeRF: Neural Radiance Field Driven Wireless Coverage Mapping for 5G Networks*. [AloT Workshop](#), [ACM MobiHoc 2024](#).
- **Amartya Basu**, Ayon Chakraborty, Kush Jajal. *Ubiquitous Indoor Mapping using Mobile Radio Tomography*. [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- 2026, 2025.
- IEEE Transactions on Mobile Computing- 2026, 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 conjunction 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.*