

# Amartya Basu

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

## 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 \(India\)](#).*

## 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 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.*