# Rishita Bansal

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## Teaching Interests

Computer Literacy and the Internet, AI for Everyone, Foundations of Computer Science I & II, Internet Software Development, Object-Oriented Design and Programming, Data Structures and Algorithms, Data Structures and Algorithms, Undergraduate Research I & II, Introduction to Computer Vision, Introduction to Artificial Intelligence, Introduction to Machine Learning, Introduction to Autonomous Robotics

## Education

**The University of Texas at Dallas** • Richardson, TX
*Master of Science* • *Ph.D. (A.B.D)* • *Computer Science*

**University of Pune** • Pune, India
*Bachelor of Science* • *Computer Science*

## Teaching & Research Experience

**Assistant Professor of Instruction (Computer Science)** – Texas State University

- CS 1308: Computer Literacy and the Internet
- CS 3358: Data Structures and Algorithms

**Lecturer of Computer Science** – University of Houston Clear Lake

- CSCI 1471: Computer Science II (Java) (Fall 2025, Spring 2026)
- CSCI 4351: Advanced Programming in Unix
- CINF 1370: Introduction to Computer Information Systems
- CINF 5432: Data Warehousing and Business Intelligence
- CSCI 4336: Machine Learning
- CSCI 3323: Object Oriented Design and Programming (C++,UML) (Re-designed)
- CSCI 4354: Operating Systems

**Teaching Assistant** –University of Texas at Dallas

Shadowed and assisted for courses like: Object Oriented Software Engineering, Object Oriented Analysis and Design, Artificial Intelligence, Machine Learning, Design and Analysis of Algorithms, etc.

**CS Outreach Instructor** – The University of Texas at Dallas

Taught K-12 students programming languages like Java, Python, C, C++, Tensorflow, OpenCV

## Advising/Mentoring

- Advise MS student for Independent Study, MS Thesis
- Advise undergraduate students for voluntary research
- Advised Graduate level SE Projects
- Provide career guidance to students through YouTube, blogs, and LinkedIn, offering advice and support on educational and professional development.

## Awards/Certifications

- Best Teaching Assistant
- ITS Texas Scholarship
- NSDF Fellowship
- Graduate Teaching Certificate
- Patent granted by Govt. of India for a bluetooth enabled home security device. (ref: 201721017342)

## Community Engagement

- **Faculty Advisor**: Google Developer Group (GDG) at UHCL
- **President**: Intelligent Transportation Systems (ITS) America's student chapter at UTD
- **Reviewer**: AMAAS Demo
- **Sub Reviewer**: AMAAS, AAAI

## Publications

**PAN-SEG: Sorghum Panicle Counting Using Segmentation Based Computer Vision Methods**
*Rishita Bansal, Damian Gonzalez, Somashekhar Punnuri, Prasanna Gowda, Prabha Sundaravadivel* @AI in Agriculture 2026

**Agri-NET UAV: a drone-captured dataset and model exploration for enhanced plant recognition using low-cost drones [link]**
*Rishita Bansal, Aryan Anand, Prabha Sundaravadivel, Balakrishnan Prabhakaran, Henry A. Torbert III* @SPIE 2025

**Cooperative Collision Avoidance for Coalitions of Connected and Autonomous Vehicles [link]**
*Dhruvkumar Patel, Rishita Bansal, Rym Zalila Wenkstern* @ITSC 2022

**MACOptions: Multi-Agent Learning with Centralized Controller and Options Framework [link]**
*Alakh Aggarwal*, Rishita Bansal*, Parth Padalkar*, Sriraam Natarajan* @ArXiv preprint