

Anindya Sundar Das

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EDUCATION

Umeå University, Sweden

PhD, Department of Computing Science

May 2022 – Present

Batch 2026

Indian Institute of Technology, Patna

Master of Technology in Mathematics & Computing

2020

CPI: 9.69/10 (Institute Silver Medal), DAAD Exchange Student: TU Darmstadt, Germany

West Bengal University of Technology

Bachelor of Technology in Electronics and Communication Engineering

2012

CGPA: 9/10

Publications

- **Anindya Sundar Das**, Monowar Bhuyan "Multi-Cue Anomaly Detection and Localization under Data Contamination", Under review (journal)..
- **Anindya Sundar Das**, Kangjie Chen, Monowar Bhuyan "Unmasking Backdoors: An Explainable Defense via Gradient–Attention Anomaly Scoring for Pre-trained Language Models", Accepted at International Conference on Learning Representations (ICLR) 2026 (CORE A*).
- **Anindya Sundar Das**, Guansong Pang, Monowar Bhuyan "Adaptive Deviation Learning for Visual Anomaly Detection with Data Contamination", IEEE Winter Conference on Applications of Computer Vision (WACV) 2025 (CORE A).
- **Anindya Sundar Das**, Aravind Ajay, Sriparna Saha, Monowar Bhuyan "Few-Shot Anomaly Detection in Text with Deviation Learning", International Conference on Neural Information Processing (ICONIP) 2023 (CORE B) (Best Paper Award).
- Tulika Saha, Saichethan Miriyala Reddy, **Anindya Sundar Das**, Sriparna Saha., Pushpak Bhattacharya. "A Shoulder to Cry on: Towards A Motivational Virtual Assistant for Assuaging Mental Agony", North American Chapter of the Association for Computational Linguistics (NAACL) 2022 (CORE A).
- Tulika Saha, Vaibhav Gakhreja, **Anindya Sundar Das** , Souhitya Chakraborty, Sriparna Saha, "Towards Motivational and Empathetic Response Generation in Online Mental Health Support", SIGIR 2022 (CORE A).
- **Anindya Sundar Das**, Sriparna Saha, "Self-Supervised Image-to-text and Text-to-image Synthesis", International Conference on Neural Information Processing (ICONIP) 2021 (CORE B).

Patents

- Vanitha Alagarsamy, **Anindya Sundar Das**, Balaji Haridass, "An Automated System And Method to Manage Product Feedbacks" , Indian Patent Office: 202211009666 , filed Feb 23, 2022. (Patent Pending)

EXPERIENCE (Research & Industry)

Umeå University

Doctoral Researcher

Umeå, Sweden

May 2022 - Present

- Developed robust and explainable anomaly detection frameworks for vision and language foundation models under data contamination.
- Proposed gradient-attention based backdoor detection and mitigation strategies for transformer-based language models.

- LG Soft India** **Bangalore, India**
Senior Research Engineer February 2021 - April 2022
 - Designed and implemented enterprise Knowledge Graph construction pipelines from unstructured product manuals using NLP techniques.
 - Developed graph-embedding-based KGQA frameworks and domain-specific question answering systems.

Duru Corporation (Contract at LG Soft India) **Bangalore, India**
Machine Learning Engineer November 2020 - February 2021
 - Built information extraction pipelines for Knowledge Graph construction from semi-structured product manuals.
 - Implemented end-to-end Knowledge Graph-based question answering systems.

IIT Patna **Patna, India**
Research Assistant July 2020 - October 2020
 - Implemented sentiment-driven response generation methods for motivational conversations using GPT-2, integrating supervised and reinforcement learning.

Technical University, Darmstadt **Darmstadt, Germany**
Research Assistant (Internship) September 2019 - March 2020
 - Developed self-supervised image captioning using a multimodal approach.

TATA Research Design and Development Center **Pune, India**
Project Intern (Internship) May 2019 – July 2019
 - Developed an NLP-based solution for biomedical knowledge extraction, leveraging Markov Logic Networks (MLN) to model N-ary relations by integrating SRL, dependency parsing, and domain knowledge rules.

IBM **Bangalore & Kolkata, India**
System Engineer (Associate → System Engineer) Apr 2014 – July 2018
 - Developed and maintained enterprise software solutions for international clients in insurance and car rental sectors.
 - Performed requirement analysis, system design, and implementation using Mainframe technologies and SQL.
 - Led development, testing, debugging, and deployment of production-grade modules.

Teaching & Leadership Experience

- Teaching Assistant for the Machine Learning Course (VT25) at Umeå University.
- WASP Cluster Leader for Anomaly Detection (since November 2023).

Mentoring

- **Aravind Ajay** — B.Tech Thesis Supervision, IIT Patna (2022–2023). Currently at Nielsen.
- **Kalpana Bishnoi** — B.Tech Thesis Supervision, IIT Patna (2023–2024). Currently at Jaguar Land Rover India.
- **Soumit Saha** — B.Tech Thesis Supervision, IIT Patna (2025–Present).

KEY SKILLS

- **Machine Learning & AI:** Trustworthy AI, Deep Learning, NLP, Computer Vision
- **Programming:** Python, R, C, SQL
- **Tools & Frameworks:** PyTorch, Keras, Git, Docker

Other Professional Skills

- IBM Mainframe
- Database: DB2, SQL

Languages

- English: Fluent
- Bengali: Mother Tongue
- Hindi: Fluent

AWARDS AND ACHIEVEMENTS

- Nasscom AI Gamechangers Award 2023-24 in the category of AI research for work on “Motivational Virtual Assistant for Assuaging Mental Agony” published in NAACL 2022.
- Best Paper Award at ICONIP 2023 for paper titled “Few Shot Anomaly Detection in Text with Deviation Learning”.
- Institute Silver Medal, IIT Patna 2020.
- DAAD Masters Scholarship awardee 2019.
- Ministry of Human Resource Development (MHRD), Govt. of India Scholarship for M.Tech(2018-2020).
- Department rank 1(MTech Mathematics and Computing) and 2nd rank among all M.Tech. students of IIT Patna(2020).

References

Dr. Sriparna Saha

Department of Computer Science
Indian Institute of Technology, Patna, India
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Dr. Erik Elmroth

Department of Computing Science
Umeå University, Sweden
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Dr. Monowar Bhuyan

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Dr. Guansong Pang

School of Computing and Information Systems
Singapore Management University, Singapore
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