

Anindya Sundar Das

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EDUCATION

Umeå University, Sweden

PhD, Department of Computing Science
Batch 2026

May 2022 – Present

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
CGPA: 9/10

2012

EXPERIENCE (Research & Industry)

Umeå University

Doctoral Researcher

Umeå, Sweden

May 2022 - Present

- Developed trustworthy anomaly detection methods Vision/Language models.
- Designed backdoor defense strategies for FLM Models.

LG Soft India

Senior Research Engineer

Bangalore, India

February 2021 - April 2022

- Developed methods to construct knowledge graphs from unstructured and semi-structured data.
- Designed methods to enrich KGs.
- Implemented Graph Embedding based methodologies to build KGQA framework.
- Developed Open Knowledge Graphs from semi-structured data using NLP tools (IE, Co-ref Resolution, Dependency Parser, Constituency Parser).
- Developed domain specific question answering modules from LG product manuals.

Duru Corporation (Client: LG Soft India)

Machine Learning Engineer

Bangalore, India

November 2020 - February 2021

- Developed methodologies to extract information to build Knowledge Graphs from client product manuals.
- Implemented Knowledge Graph based end-to-end question answering systems.

IIT Patna

Research Assistant

Patna, India

July 2020 - October 2020

- Implemented sentiment-driven response generation methods for motivational conversations using GPT-2, integrating supervised and reinforcement learning.

Technical University, Darmstadt

Research Assistant (Internship)

Darmstadt, Germany

September 2019 - March 2020

- Developed self-supervised image captioning using a multimodal approach.

TATA Research Design and Development Center

Project Intern (Internship)

Pune, India

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

Kolkata, India

System Engineer

May 2015 – July 2018

- Worked with international clients in the Car Rental and Insurance sectors, developing programs for report generation.
- Developed and optimized software modules for IBM client brand integrations.
- Analyzed business requirements, performed impact analysis, and proposed design implementations.
- Designed functional, high-level, and low-level documents, and developed SQL-embedded programs for data processing.
- Conducted unit testing and end-to-end system testing.

Associate System Engineer

Bangalore & Kolkata, India

April 2014 - May 2015

- Worked as a developer with international clients in Pharmacy in Benefit Management, insurance, and financial sectors.
- Developed, tested, and reviewed code while analyzing and debugging Mainframe programs.
- Translated client requirements into design documents and proposed solutions.
- Led development efforts, including programming, testing, and implementation.
- Modified and optimized queries using SPUFI and Embedded SQL.

Teaching & Leadership Experience

- Teaching Assistant for the Machine Learning Course (VT25) at Umeå University.
- Supervised B.Tech final-year thesis projects.
- WASP Cluster Leader for Anomaly Detection.

KEY SKILLS

- **Machine Learning & 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).
- GATE 2014 qualified, Rank 855 out of 2,16,367 students, Score 756/1000.
- Selected for MS(engineering) EE in IISc(2015), M.Tech IIT kgp Multimedia Information processing(2015).
- Departmental Rank 5,ECE Narula Institute of Technology(2012).

Publications

- **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)**
- 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)

References

Dr. Sriparna Saha

Department of Computer Science
Indian Institute of Technology, Patna, India

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Dr. Erik Elmroth

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Dr. Guansong Pang

School of Computing and Information Systems
Singapore Management University, Singapore

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