Anand Kumar Rai



PhD Student, IIT Kharagpur

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Education

PhD in Computer Science and Engineering	Aug 2022-Present
Indian Institute of Technology, Kharagpur, India (CGPA: 8.1/10)	
M.Tech. in Data Science Indian Institute of Technology, Hyderabad, India (CGPA: 8.94/10)	2018-21
B.Tech in. Computer Science and Engineering Indian Institute of Information Technology, Jabalpur, India (CGPA: 9.1/10)	2008-12
Intermediate [CBSE Board] Central Hindu Boys School, BHU, Varanasi, India (Marks: 89.6%)	2006-08
Matriculation [CBSE Board] Crescent Convent School, Dildarnagar, Ghazipur, India (Marks: 92.4%)	2005-06
Interests	
Natural Language Processing, Data Mining, Fairness in AI/ML Systems	

Publications

A Deep Dive into the Disparity of Word Error Rates Across Thousands of NPTEL MOOC Videos

Anand Kumar Rai, Siddharth D Jaiswal, Animesh Mukherjee

The 15th International AAAI Conference on Web and Social Media (ICWSM, 2024)

DENOASR: Debiasing ASRs through Selective Denoising

Anand Kumar Rai, Siddharth D Jaiswal, Shubham Prakash, Bendi Pragnya Sree, and A. Mukherjee *The 18th International Conference on Knowledge Graphs (ICKG, 2024)*

Professional Experience

Joint Plant Committee (JPC), Ministry of Steel, Govt. of India

Kolkata

Deputy Manager

Feb 2015 - Current

- Development & Maintenance of Data Entry Software's and Analytical Reports on Indian Iron & Steel Database
- Areas of work: Business Intelligence, Web Development

AmadaSoft India Pvt Ltd

Chennai

Software Developer

Jan 2014- Jan 2015

- Development of fast and secure API for CAD and CAM File Management
- Areas of work: Encryption, Backend Development using C++

Amada Co., Japan Tokyo

Software Developer Aug 2012 – Sep 2013

• Development of desktop application for File management in an Embedded System

• Areas of work: Desktop App Development

S & P Capital IQ Hyderabad

Intern

May 2011 -Nov 2011

- Development of workflow tracker tool for managers for evaluating their team performance
- Areas of work: Desktop App Development , OLAP Cube

Academic Projects

TEMPSQL: Template based Text-to-SQL generation on single source database [Master's Thesis]

Advisor: Prof. Maunendra S Desarkar

Jan 2021 – Jun 2021

- Development & Deployment of Attention-Based Seq2Seq model trained on augmented Text-SQL pairs
- Research Areas: Attention Mechanism, Seq2Seq Model, Language Modelling

RELALG: Design of Relational Algebra Dialect using MLIR compiler ecosystem

Advisor: Prof. Ramakrishna Upadrashta

Aug 2020 – Dec 2020

- Analysis of MLIR compiler framework and design of lowering Relational Algebra operations to low-level instructions
- Research Areas: LLVM , Compiler Development

CoVID related Hate Speech Detection on Tweet dataset

Advisor: Prof. Maunendra S Desarkar & Prof Srijith

Jan 2020 - Jun 2020

- Development of LSTM based model is trained on the manually annotated CoVID related dataset. The
 developed module can classify the tweet as hate/non-hate, categorize hate category and identify hate
 target.
- Research Areas: LSTM , Sentiment Analysis

e-Public Distribution Monitoring System

Advisor: Prof. Atul Gupta

Jan 2011 – April 2011

- Development of Object-Oriented based e-PDMS software system with an aim to bring transparency in Public Distribution Scheme operated by State Govts.
- Research Areas: OOP Practices, UML Modelling, Web development

Scholastic Achievements

- District Topper in CBSE Board Matriculation Examination in the year 2006
- Rank among top 1% in about 10,00,000 students appeared for AIEEE-2008
- Awarded for Academic Excellence by MHRD in two consecutive academic sessions, 2008-09 and 2009-10
- Qualified GATE in 2011 with AIR under 1300
- Qualified UGC-NET in Computer Science with Junior Research Fellowship in 2022

Positions of Responsibility

- Asst. Coordinator of Counselling Committee at IIITDM Jabalpur
- Coordinator of Literary Club at IIITDM Jabalpur
- Volunteered Aksharmaala Program meant for tutoring students from rural govt. schools
- Worked as Secretary of Canteen at Joint Plant Committee, Kolkata

The above-mentioned information is best of my knowledge.

Date: 12th Nov 2024

Anand Kumar Rai