

# Debarghya Datta

M.Tech: Computer Science & Engineering

Indian Institute of Technology, Bhilai

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deb-iitbh codechef

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**≅** Website

Examination	University	Institute	Year	CPI/%
Post Graduation	IIT Bhilai	IIT Bhilai	2022-24	9.64
Graduation	KIIT	KIIT	2017-21	9.22
Senior School	HSC	Aditya Academy	2017	85.00
Secondary School	SSC	Aditya Academy	2015	9.40

#### **PROJECTS**

• Entity Linking in Low-Resource Domain

(under **Dr. Soumajit Pramanik**: Paper Submitted)

(Dec'22-May'24)

- o Devised a novel domain-specific unsupervised Entity linking system.
- Showed effectiveness in the low-resource domains(Chemical, Medical, Literature).
- Outperformed the state-of-the-art models in the low-resource domain by 2-14%.
- Exploring the Realm of Drug-Drug Interaction [Link]

(under **Dr. Rukmankesh**: Paper Submitted)

(Aug'23-May'24)

(Oct'23-Nov'23)

- Predicting the Drug-Drug Interaction using Deep Learning
- Explored GCN & Node2Vec models for representation learning
- Time-efficient architecture with 95+% accuracy
- Information Extraction from Scientific Papers [Link]

- Extracting contributions from Scientific Papers
- Replaced Relation extraction model Dygie++ with PL-Maker
- Improved 23-33% in the precision of Task and Method extraction.
- Query Summarized Attention for TREC-CT 2022 [Link]

(Feb'23-Mar'23)

- Used BM25 retriever and BERT-Reranker
- o Created a Key-Word Summerizer module to create Ouerv summaries
- Able to outperform the published models in 2/3 metrics

### **TECHNICAL SKILLS**

- Programming & Scripting Languages: C, C++, Java, Bash & Posix, Python, HTML, CSS
- Tools & Libraries: Git, Linux, MySQL, seaborn, LaTeX, Pytorch, Sklearn, Huggingface, Llamaindex, Metaflow
- CS Fundamentals: Data Structure & Algorithms, Operating Systems, DBMS

## **WORK EXPERIENCE & INTERNSHIPS**

• Systems Engineer | TCS

(May'21-July'22)

- Functional Testing of E2E Features
- o Automated manual test scenerios
- Tech Intern | *HighRadius*

(Apr'20-June'20)

- o Completed a full stack software project
- o Got one Year extended Internship offer

### POR & EXTRA-CURRICULARS

• PG-CSE Student Representation at IIT Bhilai

(July'23-May'24)

Teaching Assistant for the course, CS100: Software Tools and Technologies

(Mar'23-May'23)

• Teaching Assistant for the course, DS210: Data Analysis and Visualization

(Jan'23-Mar'23)

### **ACHIEVEMENTS**

- Selected among 1220 contributors for Google Summer of Code 2024.
- Achieved All India Rank (AIR) 1683 in GATE 2021.

### **RELEVANT COURSES**

CS550: Machine Learning DS504: Natural Language Processing DS501: Information Retrieval CS559: Computer System Design