



Debaghya Datta

M.Tech: Computer Science & Engineering

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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

M.TECH THESIS

• Natural Language Understanding in Medical Conversational Question-Answering

(Guide: Dr.Soumajit Pramanik)

(Dec'22-Present)

Current work:

- Trained different Transformers(BERT,GPT2,T5) model to detect different entities in the conversational context.
- Integrated a Medical Knowledge graph to extend the capabilities of the Transformers.
- Devised a novel domain-specific unsupervised Entity linking system.

Future work:

- Integrate common sense Knowledge graph to better understand the colloquial language.

PROJECTS

• Exploring the Realm of Drug-Drug Interaction

(Aug'23-Present)

- Predicting the Drug-Drug Interaction using Deep Learning
- Explored different Deep-graph models
 - Graph Convolutional Network(GCN)
 - Relational Graph Convolutional Network(R-GCN)

• Information Extraction from Scientific Papers

(Oct'23-Nov'23)

- Extracting contributions from Scientific Papers
- Replaced Relation extraction model Dygie++ with PL-Maker
- Improved task extraction precision by 33%
- Improved method extraction precision by 23%

• Query Summarized Attention for TREC-CT 2022

(Feb23-Mar'23)

- Used BM25 to retrieve the top 1000 Documents
- Created a Key-Word Summerizer module to create Query summaries
- Used BERT-Reranker to rank the retrieved documents
- 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, LaTeX, Pytorch, Sklearn, Huggingface, Matplotlib, Seaborn
- CS Fundamentals:** Data Structure & Algorithms, Operating Systems, DBMS

WORK EXPERIENCE & INTERSHIPS

• Systems Engineer | TCS

(May21-July'22)

- Functional Testing of E2E Features
- Automated manual test scenerios
- Identified quality issues and created test-reports

• Tech Intern | HighRadius

(Apr20-June'20)

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

POR & EXTRA-CURRICULARS

- Teaching Assistant for the course, CS100 : Software Tools and Technologies
- Teaching Assistant for the course, DS210 : Data Analysis and Visualization

(Mar'23-May'23)

(Jan'23-Mar'23)

ACHIEVEMENTS

- Participated in Inter-IIT 2022(NLP Track). Our team ranked 13th out of 23 IITs.
- AIR 1683,GATE 2021