

Ujan Deb

GitHub | Scholar | +91 8902499661 | ujangd@iitbhilai.ac.in

EDUCATION

IIT BHILAI

MTECH IN COMPUTER SCIENCE

Jun 2022 | Bhilai, CG

GPA: 9.55

IEM KOLKATA

BTECH IN ELECTRICAL ENGINEERING

Jun 2018 | Kolkata, WB

GPA: 7.97

SKILLS

PROGRAMMING

Languages:

Python • C • Java

Technology:

PyTorch • Jax • Git

COURSEWORK

Data Structures and Algorithms

Linear Algebra

Multivariate Calculus

Probability

Graph Theory

Machine Learning

Adversarial Machine Learning

Information Retrieval

Advanced Data Analytics

PROJECTS

- End to end Conv QA pipeline with transformer models (thesis).
- Cobble detection and prevention with Bhilai Steel Plant, analyzing PLC time series data alongside image and video feeds.
- LSTM based text summarizer.
- Public transport tracking mobile application with API from Calcutta State Transport Corporation (CSTC).
- 3rd place at Jadavpur University Hackathon. 3rd place at Kshitij, IIT Kharagpur. All India finals at TCS Hackathon.

EXPERIENCE

DRDO | RESEARCH FELLOW

Jun 2024 - Present | Bengaluru, KA

- Working on analyzing and inducing compositional reasoning in LLMs using tools from mechanistic interpretability.

UT AUSTIN | RESEARCH ASSISTANT

Nov 2023 - May 2024 | Remote

- Worked on computational social science, analyzing sports language in online political discourses and its implications.

RASHI.AI | INTERN

Sep 2023 – Nov 2023 | Remote

- Analyzed trends in programming languages and technologies across diverse domains to generate insights for both employers and employees.

IISC | RESEARCH FELLOW

Nov 2022 - Apr 2024 | Bengaluru, KA

- Built high performance speech recognition models.
- Compressed and sparsified models to work efficiently under low resource settings.

IIT BOMBAY | RESEARCH INTERN

May 2022 – Sep 2022 | Mumbai, MH

- Worked on zero shot cross lingual transfer for low resource languages.

TRACKMYBEAT | INTERN

Aug 2016 – Dec 2016 | Kolkata, WB

- Built a temperature monitoring and alert system prototype using programmable WiFi modules.

RESEARCH

- [1] U. Deb, R. Parab, and P. Jyothi. Zero-shot cross-lingual transfer with learned projections using unlabeled target-language data. *Proceedings of the 61th Annual Meeting of the Association for Computational Linguistics*, 2023.
- [2] S. Ganguly, R. Nayak, R. Rao, U. Deb, and P. AP. Adakd: Dynamic knowledge distillation of asr models using adaptive loss weighting. *arXiv:2405.08019*, 2024.