

Education

2016–2020 **Indian Institute of Technology Kharagpur**,
BTech. Computer Science and Engineering, GPA: 9.04/10.

Work Experience

May 2019 - **Accenture Technology Labs**, Bangalore.

Aug 2019 Research Intern

- Worked on stock price prediction using news articles and incorporated knowledge graph as domain knowledge
- Used Graph Convolutional Networks along with events for better representation of the real-world stock scenario
- Implemented novel joint training of Regression Models and Graph Networks for better predictions

Feb 2017 - **Autonomous Underwater Vehicle**, IIT Kharagpur.

May 2019 Undergraduate Researcher

- Implemented real-time underwater buoy detection using Single Shot MultiBox Detector on the top of MobileNet
- Working on making the inference of models lightweight and suitable for use in bot using Movidius NCS
- Used Actionlib and Smach Packages of ROS to create Mission Planner Stack on Kraken 3.0

Publications

Jan 2020 **Analysing the Extent of Misinformation in Cancer Related Tweets** .

- Authored by **Rakesh Bal***, Swastika Dutta*, Sayan Sinha*, Ritam Dutt, Rishabh Joshi, Sayan Ghosh
- Currently under review at [ICWSM 2020](#) - (Atlanta, USA) * - equal contribution

Nov 2019 **Modelling Bahdanau Attention using Election methods aided by Deep Q-Learning** [\[link\]](#).

- Authored by **Rakesh Bal***, Sayan Sinha*
- Currently under review at [ACL 2020 SRW](#) - (Seattle, USA) * - equal contribution

Projects

NMT ◦ Analysed performance of various attention based NMT models Networks such as Bahdanau and Transformer
◦ The translation results were fed into a search engine and top results were analysed with the original queries

Fair GANs ◦ Worked on overcoming dataset bias towards gender by balancing the images in the dataset
◦ Used GANs (Cycle-GAN) for unsupervised domain translation in order to achieve dataset balancing

Skills

Languages Python, C, C++, Octave, Java, Verilog, MIPS

Libraries PyTorch, Keras, TensorFlow, Pandas, Scikit-Learn, OpenCV, ROS

Relevant Courses

Computer Algorithms, Software Engineering, Switching Circuits and Logic Design, Computer Organisation &
Science Architecture, Compilers, Operating Systems, Computer Networks, Theory of Computation

Mathematics Discrete Mathematics, Probability & Statistics, Linear Algebra

Artificial Machine Learning, Educational Data Analytics, Image Processing, Reinforcement Learning, Deep
Intelligence Learning, AI & Ethics, Natural Language Processing

Achievements

Aug 2018 Awarded B-Certificate in drill and weapon training in National Cadet Corps (NCC).

Feb 2016 Secured All India Rank 191 in KVPY SX Stream organised by IISc, Bangalore

June 2016 Secured All India Rank 265 (amongst 200,000 candidates) in IIT-JEE Advanced 2016.

May 2015 Recipient of National Talent Search Examination (NTSE) Scholarship