

Somnath Rakshit

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CAREER OBJECTIVES

Seeking to gain knowledge, experience and serve in academic research. Working towards completing a Masters in Information Studies with Data Science specialization. Broadly interested in machine learning in healthcare.

EDUCATIONAL QUALIFICATION

The University of Texas at Austin — M.S. in Information Studies

August 2019 - May 2021, ischool.utexas.edu

- **GPA:** 3.95 /4.0 • **Data Science Specialization**
- **Thesis:** Sequence parameter selection for MRI parameter mapping (Advisor: [Dr. Jon Tamir](#))
- **Teaching Assistant:** MIS 385N - User Generated Content Analytics (Fall 2019), EE 461P - Data Science Principles (Spring 2020), MIS 381N - Advanced Predictive Modelling (Fall 2020)
- **Coursework:** Introduction to Machine Learning, Linear Models, AI in Health, Data Mining, Mathematical Statistics for Applications

Jalpaiguri Government Engineering College — B.Tech. in Computer Sc & Engg

August 2014 - May 2018, jgec.ac.in

- **GPA:** 3.80 /4.0
- **Coursework:** Data Structures, Design and Analysis of Algorithms, Object Oriented Programming, Calculus, Discrete Mathematics, Probability and Statistics, Artificial intelligence

WORK EXPERIENCE

Intelligent Data Exploration and Analysis Laboratory, UT Austin — Research Assistant (May - Ongoing)

Project - Privacy-preserving federated learning using healthcare data (Mentor: [Prof. Joydeep Ghosh](#))

- Computable COVID-19 subphenotype generation with tensor factorization.

Centre of New Technologies, University of Warsaw, Poland — Research Assistant (Jan - Aug 2019)

Project - Ranking genetic biomarkers for breast cancer subtypes

(Mentors: [Dr. Indrajit Saha](#) and [Dr. Dariusz Plewczynski](#))

- Developed a novel ranking algorithm using multi-objective genetic algorithms. Additionally, showed the relation between up/down regulation of genes and survival probability of a population.

Cyware Labs, Bangalore — Software Engineer (July - Nov 2018)

- Clustered similar articles and ranked by articles' importance using CNNs resulting in 2x no. of articles selected.
- Determined trending keywords using Named Entity Recognition from news articles.

RESEARCH PUBLICATIONS

- Michał Denkiewicz, Indrajit Saha, **Somnath Rakshit**, Jnanendra Prasad Sarkar, Dariusz Plewczynski, **Identification of Breast Cancer subtype specific MicroRNAs using Survival Analysis to find their role in transcriptomic regulation**, *Frontiers in genetics* (2019)
- Namrata Pant, **Somnath Rakshit**, Sushmita Paul, Indrajit Saha, **Genome-wide analysis of multi-view data of miRNA-seq to identify miRNA biomarkers for stomach cancer**, *Journal of biomedical informatics*

SKILLS

Language

- Python, Java, C++

Frameworks

- Scikit-learn, Numpy, Pandas, Matplotlib, Spacy, PyTorch, Tensorflow, Keras

Databases

- SQL, Elasticsearch

Activities

- **Reviewer:** IEEE-EMBS BHI 2019, Elsevier Journal of Biomedical Informatics