Somnath Rakshit

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EDUCATION

Master of Science, Information Studies (Data Science Track), May/2021
The University of Texas at Austin | **GPA**: 3.89/4 | **Courses taken**: Linear Models, Applied Encryption, AI in Health, Introduction to Machine Learning, Data Mining
Teaching Assistant: **1. MIS 385N** -User Generated Content Analytics (Fall 2019), McCombs School of Business **2. EE 461P** -Data Science Principles (Spring 2020), Cockrell School of Engineering

Bachelor of Technology, Computer Science and Engineering, May/2018
Jalpaguri Government Engineering College, India | **GPA**: 8.68/10
Courses taken: Artificial intelligence, Data Mining, Data Structures, Calculus, Discrete Mathematics, Probability and Statistics, Design and Analysis of Algorithms, Object Oriented Programming

EXPERIENCE

Research Assistant, Centre of New Technologies, University of Warsaw, Jan/2019 – Aug/2019
- Generated insights from unstructured images obtained from healthcare providers to classify cancer subtypes.
- Quantified and ranked genes based on their expression data with regard to multiple cancer types.

Visiting Reseacher, Institute of Informatics and Telematics, CNR Pisa, May/2019
- Developed a method of preprocessing a document within a biomedical corpus using Marisa Tries that gives better performance for classification.
- Developed a novel meta-ranking method that combines multiple ranks into one with application in gene ranking.

Software Engineer, Cyware Labs, July/2018 – Nov/2018
- Clustered similar news articles and ranked by articles' importance using CNNs resulting in 2x no. of articles selected.
- Determined trending keywords using Named Entity Recognition for quick understanding of important news.

SKILLS

Programming Languages: Python, Java | **Frameworks**: PyTorch, Tensorflow, Keras, scikit-learn, NLTK, Numpy, Scipy, Pandas, Matplotlib, Git, Django | **Databases**: SQL, Elasticsearch

PUBLICATIONS AND PROJECTS

Nilavra Bhattacharya, **Somnath Rakshit**, Jacek Gwizdka & Paul Kogut, "Relevance Prediction from Eye-movements Using Semi-interpretable Convolutional Neural Networks", In Proceedings of CHIIR'2020, Vancouver, Canada.

Somnath Rakshit, Indrajit Saha & Dariusz Plewczynski, "Deep Learning for Detection and Localization of Thoracic Diseases using Chest X Ray Imagery", In Proceedings of ICAISC 2019, June, 2019, Zakopane, Poland

VizWiz Challenge, Mar/2020 (Ongoing) - Developing a method to caption images taken by people who are blind using a multi-modal dataset containing text and image data. Guide: Dr. Danna Gurari

Sequence parameter selection for MRI parameter mapping, Mar/2020 (Ongoing) - Using deep learning to find the optimal set of scan parameters to best estimate the tissue parameters during MRI acquisition. Guide: Dr. Jon Tamir

Generation of Clinically Accurate Chest X-Ray Reports Using Deep Learning, Sep/2019 (Ongoing) - Generating reports from unknown chest X ray images by using a dataset of images and their corresponding reports. **Guides** – Prof. Ying Ding and Prof. Nick Bryan.

ACTIVITIES

Reviewer: IEEE-EMBS BHI 2019, Elsevier Journal of Biomedical Informatics
Member, UT Natural Language Learning Group. Presented RoBERTa model in Fall 2019 session