Somnath Rakshit

+1 (737) 333-1713 | somnath@utexas.edu

somnathrakshit.github.io | *linkedin.com/in/somnathrakshit/* | github.com/somnathrakshit/

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

Researcher, 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.

Software Engineer, Cyware Labs, July/2018 – 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 for quick understanding of important news.

PUBLICATIONS AND PROJECTS

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

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

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.

BioPortal, Sep/2019 (Ongoing) - Building a web portal using PubMed database to see publication trends in scientific research for any author, bio-entitiy. **Guide**: Prof. Ying Ding.

Identifying Land Patterns from Satellite Imagery in Amazon Rainforest, Jan/2018 - Multi label classification of satellite images using Keras resulting in state of the art accuracy. **Guide**: Dr. Dipak Kumar Kole

Detection and Localisation of Diabetic Retinopathy, April/2018 - Classification and localization of diabetic retinopathy using Keras in fundus images with 10x lesser training parameters achieving similar performance as the state of the art models. **Guides**: Dr. Dipak Kumar Kole and Swalpa Kumar Roy.

SKILLS

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

ACTIVITIES

Organizing member of AI Health Data Challenge 2020
Reviewer: IEEE-EMBS BHI 2019, Elsevier Journal of Biomedical Informatics
Secretary, Coders Club, Jalpaiguri Government Engineering College (Aug/2017 – May/2018)