Somnath Rakshit

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EDUCATION

Master of Science, Information Studies, May/2021
The University of Texas at Austin
Courses taken: Linear Models, Applied Encryption

Bachelor of Technology, Computer Science and Engineering, May/2018
Jalpaguri Government Engineering College, India
Courses taken: Artificial intelligence, Data Mining, Data Structures, Discrete Mathematics

EXPERIENCE

Teaching Assistant, (User Generated Content Analytics), The University of Texas at Austin, Sep/2019 – Current
- Generating business insights from unstructured data including text and images using Python.
- Assisting students with course material and assignments in Machine Learning using Python during office hours.

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

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

Indrajit Saha, **Somnath Rakshit**, Tanay Ghosh, "Machine Learning for Object Labelling", IEEE TENCON, July, 2018 Jeju Island, South Korea

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)