

# Somnath Rakshit

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## EDUCATION

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**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, Discrete Mathematics

## EXPERIENCE

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**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

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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

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

## ACTIVITIES

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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)