

Nishant Rajadhyaksha

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Research Interests: Generative Modelling, Geometric Data Processing.

EDUCATION

K.J. Somaiya College of Engineering 2020-2024
B. Tech Computer Engineering GPA: 9.51/10 (6th Sem)

PUBLICATIONS/PRE-PRINTS

- Dif-GSR: Diffusion based Graph Super-Resolution with Applications - to Connectomics.** [code][paper]
Nishant Rajadhyaksha, Dr. Islem Rekik.
PRIME-MICCAI 2023
- Graph Contrastive Learning for Multi-Omics Data** [code][paper]
Nishant Rajadhyaksha, Aarushi Chitkara.
Arxiv(Pre-print)
- A Graphical Approach for Brain Haemorrhage Segmentation** [code][paper]
Dr. Ninad Mehendale, Pragya Gupta, Nishant Rajadhyaksha, Ansh Dagha, Aditi Paretkar, Tanmay Mishra, Mihir Hundiwalla, Sakshi Chavan.
Arxiv(Pre-print)
- TLA: Twitter Linguistic Analysis** [code][paper]
Tushar Sarkar, Nishant Rajadhyaksha
International Journal of Computer Sciences and Engineering, 2021
- Modelling Veracity of Football Player Trade Rumours on Twitter Using Naive Bayes – Algorithm** [paper]
Nishant Rajadhyaksha
2021 International Conference on Artificial Intelligence and Machine Vision (AIMV)

RESEARCH/WORK EXPERIENCE

- Research Intern - BRAIN Lab, IIT-H** December 2023 - Present
Advisor: Dr P.K Srijith BRAIN Lab, IIT - Hyderabad
- Research related to the integration of deep probabilistic generative - models to solve time-series forecasting problems.
- Visiting Researcher - Richardson Lab, Queens University** June 2023 - December 2023
Advisor: Dr Kathrin Tyryshkin, Dr Neil Renwick Kingston, Ontario Canada
- Received the MITACS-Globalink Scholarship to work on a project - relating to cancer genomics and graph neural networks.
 - Modelling cancerous RNA molecular target networks as bipartite graphs.
 - Identifying the most important RNA molecules by using explanations - produced by GNNExplainer.
- Research Intern - Basira Lab** January 2023 – June 2023
Advisor: Dr. Islem Rekik (Imperial College London) Basira Lab, Imperial College London
- Proposed a novel diffusion-based approach for super-resolving connectomes.
 - Beats previous SOTA for brain graph super-resolution.
 - Accepted as a PRIME workshop paper at MICCAI 2023.
 - Published in PRIME 2023 Springer LNCS Proceedings.
- Research Intern - K.J. Somaiya College of Engineering** April 2022 – May 2023
Guide: Prof. Mansi Kambli (KJSCE) KJSCE, Mumbai
- Used TorchGeo to develop a segmentation algorithm to -

segment sugarcane crops in remote sensing data.

NLP/Python Developer - Mettler Toledo

January 2022 – June 2022

Guide: Chetan Dhawan (Business Developer Mettler Toledo)

Mettler Toledo, Mumbai

- Used NLP algorithms to finetune Microsoft’s LayoutLMv2 to extract - relevant information from invoices.
- Developed different Python programs to automate tasks relating to - database retrievals.

Backend Developer - Aloyt

April 2021 – June 2021

Guide: Kunal Dixit - (Developer Aloyt)

Aloyt, Mumbai

- Worked on creating a robust backend for a website using Django.

HONORS AND AWARDS

- Received the MITACS Globalink award. (2023)
 - Received funding to perform research at a Canadian university.
 - Funding of \$15000 to pursue graduate studies at a recognized - Canadian university.
- Kaggle Notebooks Expert (2022)
 - Highest Global Rank: 1805 out of 3,01,064.

POSITIONS OF RESPONSIBILITY

- **Head** - DataZen (Data Science Council of Somaiya Vidyavihar University) (2022-2023)
 - Served a student body of around 40,000 students.
 - Conducted various workshops with a research-based theme.
- **Technical Team** - DataZen (2021-2022)
 - Helped with organising the technical aspects of workshops.
 - Handle any technical queries posed by the student body.
- **Technical Team** - CSI (Computer Society of India KJSCE chapter) (2021-2022)
 - Conducted the regional selections for the Smart India Hackathon(SIH).
 - Was responsible for conducting technical workshops.

TECHNICAL SKILLS

Languages	Python, C++, C, Java, HTML/CSS SQL
Tools and Libraries	PyTorch, torch-geometric, OpenCV, Git, LATEX, Django

BLOG

Title: A Gentle Introduction To Graph Spectral Filtering

[\[blog\]](#)

Author: Nishant Rajadhyaksha

Publisher: Medium

EXTRACURRICULAR ACTIVITIES

- Represented KJ. Somaiya College of Engineering’s football team for the years 2022 and 2023.
- Participated in Thane Division Football Association – 1st Division Football (7th tier of Indian Football Pyramid.) for Envision F.A