

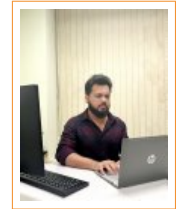
Dipanjoyoti Paul

Curriculum Vitae

Center for Artificial Intelligence Research (C-AIR)
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I am an Assistant Professor in the Department of Computer Science under Institute of Systems and Information Engineering for the *Center for Artificial Intelligence Research (C-AIR)* unit at University of Tsukuba, Japan. I also hold the position of Visiting Scientist in the department of Computer Science & Engineering at The Ohio State University, USA. Prior to that, I was a post-doctoral fellow in the department of Computer Science & Engineering at *Imageomics Institute* at The Ohio State University, Columbus, USA. I have completed my Ph.D. at the department of Computer Science & Engineering, Indian Institute of Technology Patna, India on May 2022, under the supervision of *Dr. Sriparna Saha* and *Dr. Jimson Mathew*, at *AI-NLP-ML* Lab. .

Current Status

- Mar, 2024– **Assistant Professor**, department of Computer Science, Institute of Systems and Information Engineering, University of Tsukuba, Ibaraki, Japan.
Present
Jan, 2024– **Visiting Scientist**, Computer Science & Engineering, The Ohio State University, Columbus, USA,
Present Working on foundational models and XAI for biological vision data for the *Imageomics Institute*.

Education

- 2017–2022 **PhD, Computer Science & Engineering**, Indian Institute of Technology, Patna, (IIT Patna), India, thesis titled "Advanced Machine Learning Algorithms for Streaming Data".
2014–2016 : **Master of Technology (M.Tech), Information Technology**, Indian Institute of Engineering Science & Technology, Shibpur (IEST Shibpur), India, with 75.86% marks.
2008–2012 : **Bachelor of Technology (B.Tech), Information Technology**, Mizoram University, Aizawl, India, with 72.4% marks.
2006–2008 : **Higher Secondary (HS)**, Ramanuj Gupta Junior College, Silchar, India, AHSEC Board, with 67.42% marks.
2005–2006 : **Madhyamik (HSLC)**, Adhar Chand HS School, Silchar, India, SEBA Board, with 75.00% marks.

Experience

- Oct, 2022– **Post-doc Fellow**, at Computer Science & Engineering, The Ohio State University, Columbus, USA.
Jan, 2024 Worked on foundational models and explainable AI (XAI) for the biological vision data at *Imageomics Institute*.
August, 2016 – **Project Staff at Indian Institute of Technology Guwahati, India**.
Feb, 2017 Worked as project staff in the project titled "ICT-based framework to enhance teaching & learning experience in a large classroom" in *UCCNet* Lab at Indian Institute of Technology, Guwahati, India.
August, 2017 – **Teaching Assistant**, at Indian Institute of Technology Patna, India.
July, 2021 Teaching assistant for the subjects Introduction to Machine Learning, Operating System (Theory and Lab), Advanced Database Lab, Innovative Design Lab, Foundation of CS.

Research Interest

Foundational models and explainable AI (XAI) for biological vision data.

AI in health; cancer detection, identification and interpretation from MRI data.

Streaming data; Multi-objective optimization, online recommendation system and online summarization for NLP data

Publications

Citation Count

- As on June 2024 According to Google Scholar total citation count is 198 (according to Google scholar; h-index: 7, i10-index: 7) and the total number of published articles is 18.

Journal Articles

- 2024 **Dipanjoyoti Paul**, Shivani Rana, Sriparna Saha, Jimson Mathew, Online Summarization of Micro-blog Data: An Aid in Handling Disaster Situations, In *IEEE Transactions on Computational Social Systems (TCSS)*, (*Impact Factor: 4.747*).
- 2023 **Dipanjoyoti Paul**, Snigdha Bardhan, Sriparna Saha, Jimson Mathew, ML-Knockoff: A Deep based online feature selection approach for multi-label data. In *Knowledge-Based Systems (KBS)*, (*Impact Factor: 8.038*).
- 2023 **Dipanjoyoti Paul**, Daipayan Chakdar, Sriparna Saha, Jimson Mathew, Online Research Topic Modelling and Recommendation utilizing Multi-view Autoencoder Based Approach, In *IEEE Transactions on Computational Social Systems (TCSS)* *Impact Factor: 4.747*.
- 2022 **Dipanjoyoti Paul**, Daipayan Chakdar, Sriparna Saha, Jimson Mathew, Multi-view Deep Online Clustering: An Application to Online Research Topic Modeling and Recommendations, In *IEEE Transactions on Computational Social Systems*, (*Impact Factor: 4.747*).
- 2022 Saptarshi Mandal, **Dipanjoyoti Paul**, Sriparna Saha, Prolay Das, Deep learning assisted detection of toxic heavy metal ions based on visual fluorescence responses from a carbon nanoparticle array. In *Environmental Science: Nano, Royal Society of Chemistry* (*Impact Factor: 8.131*)
- 2022 Saptarshi Mandal, **Dipanjoyoti Paul**, Sriparna Saha, Prolay Das, Multi-layer Perceptron for Detection of different class Antibiotics from Visual Fluorescence Response of a Carbon Nanoparticle-based Multichannel Array. In *Sensors and Actuators B: Chemical* (*Impact Factor: 7.460*)
- 2021 **Dipanjoyoti Paul**, Rahul Kumar, Sriparna Saha, Jimson Mathew, Multi-objective Cuckoo Search based Streaming Feature Selection for Multi-label Data set, In *ACM Transactions on Knowledge Discovery from Data*, (*Impact Factor: 2.713, h5-index: 59*).
- 2021 **Dipanjoyoti Paul**, Anushree Jain, Sriparna Saha, Jimson Mathew, Multi-objective PSO based online feature selection for multi-label classification, In *Knowledge Based Systems*, (*Impact Factor: 8.038*).
- 2021 **Dipanjoyoti Paul**, Sriparna Saha, Abhishek Kumar, Jimson Mathew, Evolutionary Multi-objective Optimization based Overlapping Subspace Clustering, In *Pattern Recognition Letters*, (*Impact Factor: 3.756*).
- 2020 **Dipanjoyoti Paul**, Sriparna Saha, Jimson Mathew, Improved Subspace Clustering Algorithm using Multi-objective Framework and Feature Optimization, In *Expert System and Applications*, (*Impact Factor: 6.954*).
- 2019 **Dipanjoyoti Paul**, Sriparna Saha, Jimson Mathew, Fusion of Evolvable Genome Structure and Multi-objective Optimization for Subspace Clustering, In *Pattern Recognition*, (*Impact Factor: 7.74, A**).
- 2017 Kamalika Bhattacharjee, **Dipanjoyoti Paul**, Sukanta Das, Pseudo-random Number Generation using a 3-state Cellular Automata. In *International Journal of Modern Physics C*.

In Conference Proceedings

- 2024 **Dipanjoyoti Paul**, Arpita Chowdhury, Xinqi Xiong, Feng-Ju Chang, David Carlyn, Samuel Stevens, Kaiya Provost, Anuj Karpatne, Bryan Carstens, Daniel Rubenstein, Charles Stewart, Tanya Berger-Wolf, Yu Su, Wei-Lun Chao, A Simple Interpretable Transformer for Fine-Grained Image Classification and Analysis, In *International Conference on Learning Representations (ICLR-24)*, *Ranking: A**.
- 2020 **Dipanjoyoti Paul**, Sriparna Saha, Jimson Mathew, Online Multi-objective Subspace Clustering for Streaming Data, In *Neural Information Processing, ICONIP-20*, *Ranking: A*.
- 2019 **Dipanjoyoti Paul**, Abhishek Kumar, Sriparna Saha, Jimson Mathew, Improved Multi-objective Evolutionary Subspace Clustering, In *Neural Information Processing, ICONIP-19*, *Ranking: A*.
- 2019 **Dipanjoyoti Paul**, Rahul Kumar, Sriparna Saha, Jimson Mathew, Online Feature Selection for Multi-label Classification in Multi-objective Optimization Framework, In *IEEE/ACM International Conference on Advances in Social Networks Analysis and Mining, ASONAM-19*.
- 2018 **Dipanjoyoti Paul**, Sriparna Saha, Jimson Mathew, Multi-objective Optimization based Subspace Clustering using Evolvable Genome Structure, In *Proceedings of the Genetic and Evolutionary Computation Conference Companion, GECCO-2018*, *Ranking: A*.
- 2016 Kamalika Bhattacharjee, **Dipanjoyoti Paul**, Sukanta Das, Pseudorandom Pattern Generation using 3-state Cellular Automata, In *International Conference on Cellular Automata, ACRI-2016*.

Fellowships & Awards

- 2019 Nominated for the **Best Paper Award** in International Conference on Neural Information Processing (ICONIP 2019), **Ranking: A**.
- 2017 –2022 **Institute Scholar Fellowship** Ministry of Human Resource Development (MHRD), Government of India, as a PhD research scholar in Indian Institute of Technology Patna, India.
- 2014 – 2016 Recipient of **GATE Scholarship** from AICTE as a post-graduate student in Indian Institute of Engineering Science & Technology, Shibpur, IEST Shibpur, India.

Invited Talks and Tutorials

- 2024 Invited to deliver a talk on Interpretability on Ecological and biological data at IIT Patna.
- 2022 Tutorial on "Summarization Systems: From Text to Multimodal" delivered in ICONIP-22, New Delhi.
- 2021 Invited to deliver a course on "Foundation of Computer Science" at the National Institute of pharmaceutical education and research (NIPER) Hajipur, Patna, India.
- 2021 Invited to conduct an online lab sessions on Machine Learning and Applications, during January 2021 at Bombay Stock Exchange.
- 2020 Invited to conduct an online lab sessions in Faculty Development Program on Machine Learning and Applications, during 7-11 December 2020 at Kochi University, Kochi.

Professional Activities

- PC member Served as program committee (PC) member for International Conference on Neural Information Processing 2022 & 2023 (**ICONIP 2022 & ICONIP 2023**) and International Joint Conference on Natural Language Processing and the 3rd Conference of the Asia-Pacific Chapter of the Association for Computational Linguistics (**IJCNLP-AAACL 2023**).
- Reviewer Served as for peer-reviewer for International Conference on Machine Learning (**ICML-24**), International Conference on Pattern Recognition (**ICPR-2024**), International Conference on Neural Information Processing, **ICONIP-2021**, ACM Transaction on Asian and Low-Resource Language Information Processing (**TALLIP**), IEEE Transactions on Computational Social System (**TCSS**), Elsevier Knowledge-based Systems (**KBS**), IEEE Internet Computing (**IC**), Elsevier Information Science (**IS**), ACM Transactions on Knowledge Discovery from Data (**TKDD**), Elsevier Expert Systems with Applications (**ESWA**), IEEE Computational Intelligence Magazine (**CIM**), IEEE Transaction on Evolutionary Computation (**TEVC**), Institution of Electronics and Telecommunication Engineers (**IETE**), Elsevier Pattern Recognition Letters (**PRL**), Transactions on Consumer Electronics (**TCE**)
- Membership Member of Institute of Electrical and Electronics Engineers (**IEEE**), Association for Computing Machinery (**ACM**) and Asia Pacific Neural Network Society (**APNNS**).

Position of Responsibility

- 2019-2022 **Executive member (President)**, of IEEE Student Branch, IIT Patna.
- 2017-2019 **Executive member (General Secretary)**, of IEEE Student Branch, IIT Patna.
- 2019 **Organizer**, GIAN Workshop on Unsupervised Data Mining: From Batch to Stream Mining Algorithms, held at IIT Patna during April 1-5, 2019.
- 2019 **Volunteer**, International Conference on Data Science and Engineering (ICDSE-19) at IIT Patna.
- 2018 **Volunteer**, GIAN Workshop on Introduction to Natural Language Processing, held at IIT Patna during May 2-7, 2018.
- 2017 **Volunteer**, #OpenGovDataHack:24Hrs Hackathon, Organized by National Informatics Centre(NIC), Government of India and IAMAI, held at IIT Patna, during Oct 14-15, 2017.

Computer skills

- Prog. Lang. Python, Keras, PyTorch, TensorFlow, C.
- Tools Github, Weights & Biases, Docker File, Latex.

Personal Details

D.O.B 19-Oct-1990

Sex Male
Status Single
Nationality Indian
Hobbies Reading Books, Travelling, Sports and Listening Music

Referees

Dr. Wei-Lun (Harry) Chao

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