

Supratim Das

DOCTORAL STUDENT · UNIVERSITY MEDICAL CENTER HAMBURG-EPPENDORF (UKE)

Martinistr. 52, Gebäude West 37, D-20246 W37 Hamburg, Germany

☎ +49 40 7410 54344 | ✉ su.das@uke.de | 🏠 github.com/Mycheaux

Education

Indian Institute of Science Education and Research, Pune

Pune, Maharashtra, India

BS-MS Dual Degree Programme

August 2017-May 2022

- Master Thesis on **Biomedical Data Enhancement using Deep Learning**.
- Major in Biology
- CGPA 8/10

Research Experience

Bio-medical Data Enhancement using Deep Learning (MS thesis project)

June 2021 - Aug 2022 (14 months full-time)

1. Developed a new Generative Adversarial Network (GAN) architecture for biomedical data augmentation on biased datasets which outperforms traditional c-GAN in terms of reducing RMSE. Our GAN has its implications in privacy preservation of Genomic Data (Not yet published). For this project I used SNP data of HLA region from 1000 genome project. 2. Helped writing NIH grant proposal.

Supervisor: **Dr. Xinghua Mindy Shi**,
Department of Computer and
Information Science, Temple
University

Expert member: **Dr. Madhusudhan
Mallur Srivatsan**, Department of
Biology, IISER-Pune

Temple University, Philadelphia, PA (remotely).

Learning and Memory in Zebrafish model system using visual stimuli

1. We tried to develop short term memory assessment assay for adult Zebra fish using visual stimuli. We proposed High throughput behavioural assessment of the relation of neural plasticity in learning and memory in Adult Zebrafish. 2. Wrote literature review for Course requirement.

Indian Institute of Science Education and Research-Pune, Pune, MH

Aug 2019 - Jan 2021 (18 months part-time)

Supervisor: **Dr. Aurnab Ghose**,
Department of Biology, IISER-Pune
Co-supervisor: **Prof. N.K. Subhedar**,
Department of Biology, IISER-Pune

Scholarship

DST INSPIRE- Scholarship for Higher Education

2018-2022

Innovation in Science Pursuit for Inspired Research – Scholarship for Higher Education scholarship from Department of Science and Technology (DST) Govt. of India, yearly renewed based on academic achievement till completion of degree

Scholarly Articles

Research Article

2022

Supratim Das and Xinghua Shi. 2022. Offspring GAN augments biased human genomic data. In Proceedings of the 13th ACM International Conference on Bioinformatics, Computational Biology and Health Informatics (BCB '22). Association for Computing Machinery, New York, NY, USA, Article 50, 1–10. DOI: [10.1145/3535508.3545537](https://doi.org/10.1145/3535508.3545537)

MS Thesis

2022

Biomedical Data Enhancement using Deep Learning. (MS dissertation). Indian Institute of Science Education and Research - Pune. [IISER-P Digital Repository Link](#)

Skills

Hard Skills

- **Programming Language:** Python (Numpy, Pandas, Sci-Kit Learn, Plotly)
- **Deep Learning framework:** Tensorflow, Pytorch
- **High Performance Computing :** Interactive computing in GPU node
- **Bash :** Basic level, for using HPC
- **Data Visualization packages:** Plotly, Seaborn, Matplotlib
- **Bioinformatics software/ webservices:** Chimera, UgenePro, Blast, Swissport, I-TASSER, Modeller
- **Writing Research Grand proposal**

Soft Skills

- **Leadership skill:** 1. Had been Media team head for 1 year in Kalpa, a college magazine and student's media house.
2. Headed 5 group projects for multiple courses.
- **Communication skill:** Presenting project works, papers etc. using basic tools like Office 365 softwares, Overleaf

Languages

- **Bengali:** Native
- **English:** Fluent