SHIKHA MALLICK

AI Researcher

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TECHNICAL SKILLS

Python | C++ | C | ROS | CUDA

PyTorch | MXNet | TensorFlow | OpenCV | NumPy | Pandas | Matplotlib | SKLearn | TensorRT

GNN | Drug Discovery | Healthcare | Computer Vision | Multimodal AI | Generative AI

Git Versioning | Docker

ACHIEVEMENTS

Winner "AI in Healthcare Hackathon"

August 2021 | SINE IITB

University Scholarship for Summer Internship

June 2016 | AIT Bangkok

REFERENCES

Dr. Sahely Bhadra
Associate Professor, IIT Palakkad

sahely@iitpkd.ac.in

Dr. Mrinal Das
Assistant Professor, IIT Palakkad

mrinal@iitpkd.ac.in

Dr. Deepak Rajendraprasad
Associate Professor, IIT Palakkad

deepak@iitpkd.ac.in

PUBLICATIONS

- **CDGCN: Conditional de novo Drug Generative Model Using Graph Convolution Networks**
  Shikha Mallick and Sahely Bhadra
  3 April 2023 | RECOMB 2023, Istanbul, Turkey
- **Solubility prediction of industrial chemicals: Feeding Graph Neural Networks with physics-based simulations data**
  Shikha Mallick et al.
  28 April 2023 | AICHE Spring meeting 2023, Houston, US

EXPERIENCE

Machine Learning Engineer | Siemens Digital Industries Software

March 2022 – Present | Pune, India

- 3D Shape Recognition using Multimodal AI
- Molecular Solubility Prediction using GNN and Multimodal AI
- Onsite project in Japan on Perception & Sensor Fusion using Late fusion methods
- Real-life Scene Generation using Generative AI
- 3D fault detection using Explainable AI

EDUCATION

MS by Research (CS) | Indian Institute of Technology, Palakkad

July 2019 – July 2022 | Palakkad, India

- CGPA: 8.4
- Thesis: **Graph Generative Network for Novel Protein-specific de novo Drug Generation**
- Teaching Assistant: **Deep Learning Lab** | **Machine Learning Lab** | **Data Engineering Lab** | **Programming Lab**

Bachelor of Tech. (CS) | Dr. A.P.J. Abdul Kalam Technical University

August 2013 – June 2017 | Lucknow, India

- Percentage: 78.4
- Project: **Timetable Generation using Genetic Algorithm in Java**

PROJECTS

CDGCN |

March 2022

- Official implementation of the *CDGCN* paper

XGB-EVM |

August 2021

- First prize in "AI for Healthcare Hackathon", SINE IITB & DERBI Foundation
- Deep ensemble model for the detection of eye diseases from FUNDUS retina images