



Manish Yadav

Im Krausfeld 47,
53111 Bonn, Germany

Available from **January 2023**

Date of Birth - 01.04.1995

+49 15212057172

manish.yadav83@outlook.com

Social Network

github.com/maneesh51

researchgate.net/profile/Manish-Yadav-16

linkedin.com/in/manishyadav51

Languages

English : C2 - Professional

German : A2 - Conversational

Hindi : C2 - Native speaker

Computational Bio-Physicist & Data Scientist

- with 4 years of experience in Germany. Highly motivated to help companies advance by developing mathematical and Data-centric tools. Bringing forth an experience of working in multidisciplinary, international and professional environment. Self-motivated to learn new skills, technologies and willing to undertake project-related business trips worldwide.

General skills

ML Mathematical modeling CNN NLP Scientific programming
Data visualization Statistical analysis Optimization Biostatistics
Predictive modeling Neural Networks Single cell data analysis
Protein Interaction Analysis Differential Equations Neuroscience

Technical Skills

Languages: Python, C++

IDE: Spyder, Jupyter Lab, Google Colab, PyCharm, Code:Blocks

Libraries: Numpy, SciPy, Tensorflow, Scikit-learn, Keras, PyTorch, Pandas, Matplotlib, Plotly, Streamlit, NLTK, Spacy.

Visualization Tools: Tableau, Inkscape, Gnuplot, Cytoscape, \LaTeX , GIMP

Certifications

Jan 2022	Neural Networks and Deep Learning	Coursera
April 2022	Natural Language Processing (NLP) in Python	Udemy
April 2022	Introduction to AI Ethics	Kaggle

Personal Data Science Projects

Spam messages prediction app Twitter sentiment analysis app
Amazon, Yelp and IMDB reviews classification
Phase-space Trajectory learning by Feedforward NN

Work Experience

Jan 2019 – Jan 2023 **PhD researcher in Physics of Complex Cell Systems**
Max Planck Institute - Dortmund and Bonn, Germany in CCL group with Dr. Aneta Koseska.

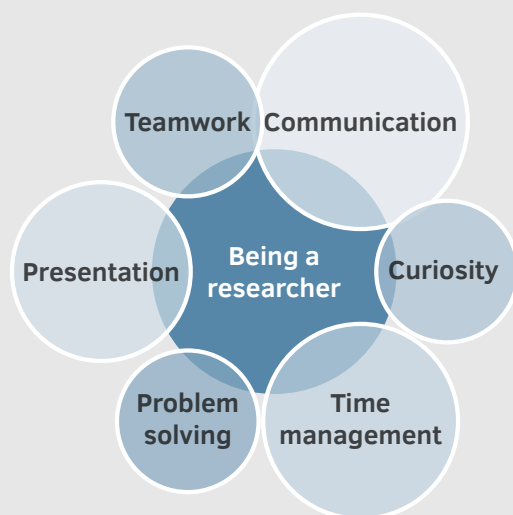
Project: Developing a novel theory of information processing and computation in intracellular protein interaction networks.

Skills used:

Complex dynamical system modeling Time-series analysis
Evolutionary analysis Protein Interaction Network analysis
Reservoir computing Mathematical modeling of networks
Single Cell Data curation, cleaning and analysis
Machine learning Echo State Networks Neural Networks

Manish Yadav

Soft Skills



Interests

Traveling

Reading scientific articles

Hiking

Sketching

Photography

Table-Tennis

Academic Education

2013 – 2018 **Bachelor's and Master's in Physics**

IISER Mohali, India (Renowned Scientific Research Institute under Govt. of India)

8.1/10 CPI in Bachelor's and Master's degree in **Physics**.

Relevant Courses:

Computational physics

Mathematical Methods for Physicists

Probability and Statistics

Network Science

Biostatistics

Nonlinear Dynamics, Chaos and Complex Systems

Genetics & Evolution

Gene Expression & Development

Master's Thesis:

'Dynamical effects of blinking connections' in Nonlinear Dynamics and Complex Systems.

2003 – 2013 **Secondary school**

Kendriya Vidyalaya, India

94.3% score in Physics, Chemistry, Mathematics and Computer Science.

Awards and recognition

2019 – present

Recipient of **International Max Planck Research School for Living Matter (IMPRS-LM)** PhD Program, Dortmund, Germany

2013 – 2018

Recipient of **Innovation in Science Pursuit for Inspired Research (INSPIRE)** scholarship by Dept. of Science and Technology, Govt. of India.

2006, 2010

National Cyber Olympiad

2017

Finalist, Interdepartmental Tennis tournament, IISER Mohali

2006

School Topper - highest grades in entire school

Volunteer Work

2016

Planning and sponsorship committee of Science and Cultural festival, IISER Mohali

2019

Organization of Diwali festival in MPI Dortmund

Recent Publications

1. **Manish Yadav et al.** 'Asymmetry in the Basin Stability of Oscillation Death States Under Variation of Environment-Oscillator Links', *Nonlinear Dynamics of Structures, Systems and Devices* 147-156, Jan 2020.

2. **Manish Yadav et al.** 'Revival of Oscillations Via Common Environment', *Nonlinear Dynamics* 91:2219-2225, 2018.

3. S. S. Chaurasia, **Manish Yadav** and S. Sinha. 'Environment Induced Symmetry Breaking of the Oscillation Death State', *Physical Review E* 98, 032223, 2018.

January 9, 2023
Bonn, Germany


Manish Yadav