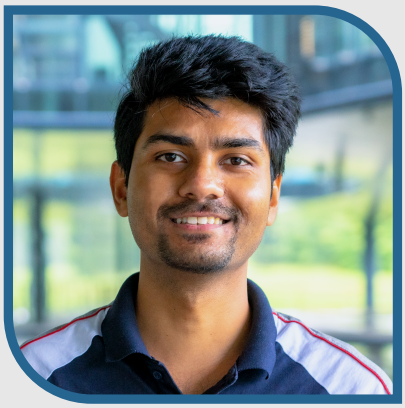

Manish Yadav

Im Krausfeld 47,
53111 **Bonn, Germany**

Eligible for EU work permit

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 : Professional

German : A2 level

Hindi : Native speaker

Physicist and Data Scientist

A multilingual, computational Physicist with 3+ years of experience in 2 countries. Highly motivated to helping companies advance by developing strategic mathematical and Deep-Learning models. Bringing forth an experience of working in multidisciplinary environment, proven track record of complex programming and publications in peer-reviewed journals.

General skills

Scientific research | Mathematical modeling | Machine Learning | Data visualization | Statistical analysis | Neuronal Networks | Complex Systems | Predictive modeling | Neural Networks | Network analysis | Data processing & cleaning

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: 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**

NLP and 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 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 networks.

Skills used:

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

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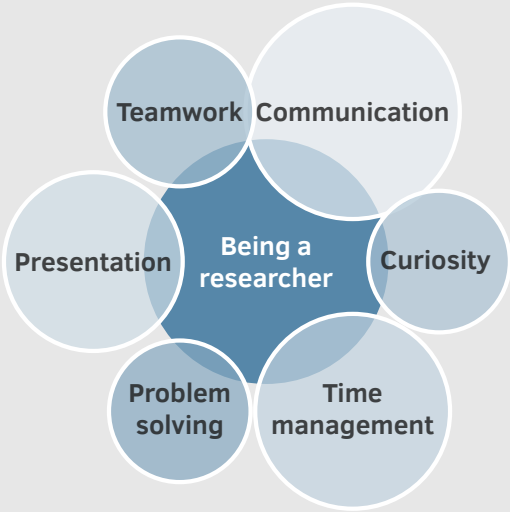
Soft Skills



Interests

- Reading scientific articles
- Hiking
- Sketching
- Photography
- Table-Tennis

Academic Education

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

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

8.1/10 CPI in BS+MS course with Bachelor's in basic sciences 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

Master's Thesis:

'Dynamical effects of blinking connections' in Nonlinear Dynamics and complex Systems with Prof. Sudeshna Sinha at IISER Mohali.

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

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.

November 25, 2022
Bonn, Germany

Manish Yadav