Mudit Joshi

CANDIDATE FOR PHD. POSITION

Details

Bremerstrasse 23
Kiel, 24118
Germany
+49 17636968177
muditj296@gmail.com

NATIONALITY

Indian

DATE OF BIRTH

29/06/1998

Links

Masters thesis

GitHub

Skills

- R
- Python
- System modelling
- Biostatistics
- Numerical simulations
- High performance computing
- Data analysis/visualization
- Machine Learning & AI-toolkits
- Standard labwork protocols
- Project management

Languages

- English
- German

Profile

Dynamic system scientist with a strong background in simulation modeling, statistical analysis, and data science. Skilled in developing and applying quantitative methods to complex problems in biological systems. Proven track record in leading impactful projects at Kiel University, ETH Zurich, SEA-EU, and in India. Adept in utilizing advanced statistical tools, Bayesian frameworks, and programming languages to inform scientific decisions. Passionate about leveraging previous expertise and international experience to now drive advancements in pharmaceutical modeling and contribute to global healthcare solutions.

Education

M.Sc. (Environmental management), University of Kiel, Germany

JUNE 2024

Graduated with German grade (1.4 - excellent ≈ 92%)

Masters thesis, ETH - Zurich, Switzerland

JULY 2023 — APRIL 2024

Supervision: Prof. Dr. Loïc Pellissier (Dept. of Environmental Systems Science)

ERASMUS double degree, Adam Mickiewicz University, Poland

FEBRUARY 2021 — AUGUST 2021

B.Sc. (Agriculture), GB. Pant University of Agriculture & Technology, India

AUGUST 2016 — SEPTEMBER 2020

Work Experience

Master's project, D-USYS, ETH-Zurich

JULY 2023 — APRIL 2024

- Simulated the eco-evolution of global species diversity using R-based mechanistic model *Gen3sis* and the *PlaSim* climate data in deep time in the form of in-silico experiments.
- Used longitudinal data analytical methods to track 36 biodiversity metrics historically and assess process-based model sensitivity.

Python projects, Campus Business Box e.V., Kiel

SEPTEMBER 2023 — JULY 2024

- Developed a regression neural network model to track biological systems in future scenarios.
- Applied RNNs and LSTMs to train models using text and time-series data.
- Created a Tkinter application to teach machine learning basics to students.
- Utilized TensorFlow, Scikit-learn, NumPy and other prominent Python libraries.

Project assistant, SEA-EU (European university of the seas)

MAY 2023 — MARCH 2024

- Coordinated scientific communication & exchanges within the alliance of 9 European universities in the Baltic Sea region.
- Managed databases, and supported statistical compilation for informed decision-making.
- Developed, updated, and reviewed teaching material, including documents, event presentations, and meeting resources.

Research assistant, Dept. of Landscape ecology, Kiel

NOVEMBER 2021 — APRIL 2022

- Assisted in the project studying the residual effects of veterinary pharmaceuticals on non-target organisms in ecosystems.
- Carried out the biochemistry lab protocols, followed by conclusive statistical analysis and data visualizations.

Intern, Institute of Himalayan Environmental Research & Education

JULY 2020 — APRIL 2022

- Assisted in Gov. of India's project - *National Mission on Himalayan Studies.*
- Led *Low External Input Sustainable Agriculture* (LEISA) initiatives in 20 Western Himalayan villages, focusing on plant protection against novel diseases. Handled project design, data collection, and reporting.

Achievements

- ERASMUS scholar at Adam Mickiewicz University-Poznan (Poland)
- NSS Best Volunteer Award (National Service Scheme) – Indian government-sponsored public service program on Social and Environmental sustainability.
- Student Representative of master's program at Kiel University examination board.