



Contact:

j.kraayvanger@uni-koeln.de

Cologne, 3.9.2026

Jan-Philip Kraayvanger

PhD Candidate in Energy-Meteorology with expertise in machine learning, atmospheric chemistry modeling and data integration. Currently investigating the capability of MLWP models to predict renewable power generation.

Experience

9/2025 - present, University of Cologne

Doctoral Researcher - Solar Energy Forecasting with MLWP Models, full-time

4/2025 - 8/2025, University of Cologne

Research Assistant - Atmospheric Modeling, part-time

10/2024 - 4/2025, University of Cologne

Tutorial Instructor - Simulation & Modeling

3/2024 - 3/2025, Forschungszentrum Jülich

Research Assistant in atmospheric chemistry modeling.

10/2023 - 9/2024, MeteoCloud GmbH

Student Assistant in Data Science: Developed a global database of extreme weather events from CMIP6 modeling data.

4/2022 - 9/2023, YouTube channel "Breaking Lab" (I&U TV)

Scriptwriter for a scientific YouTube Channel

9/2018 - 9/2021, University of Cologne

Student assistant, Teaching Evaluation Unit

11/2014 - 11/2016, Geriatric Nurse (part-time), Altenheim Maria Hilf

10/2010 - 10/2013, ICU Nurse (part-time), KH der Augustinerinnen

Education

9/2025 - present: PhD Candidate in Energy-Meteorology

University of Cologne

10/2022 - 8/2025: M.Sc. Computational Sciences

University of Cologne: Interdisciplinary program combining computer science and natural sciences. Covering data analysis, machine learning, and simulation methods. Master's thesis in atmospheric chemistry modeling.

11/2021 - 7/2022: "IBM Data Science Professional" Certificate

Coursera online course in data analysis, data processing and machine learning

10/2015 - 9/2021: B.Sc. Physics

University of Cologne (part-time)

10/2010 - 4/2015: German Abitur (High school diploma)

ILS (Correspondence School, distance learning)

5/2010 - 9/2010: Paramedic Seminar

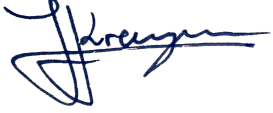
Johanniter Cologne

Jan-Philip Kraayvanger

Contact:

[j.kraayvanger@
uni-koeln.de](mailto:j.kraayvanger@uni-koeln.de)

Cologne, 3.9.2026



IT Skills

- Python
- Julia
- LaTeX
- Shell Scripting
- Jupyter & VS Code
- GitHub Copilot
- NetCDF (CDO, NCO)
- Version Control (Git)
- ...

I also have basic knowledge on many IT topics (e.g. FORTRAN, C#, SQL), and quickly acquire new skills through a strong affinity and personal interest in IT related subjects.