Experience

Since 10/2022	Research Assistant at ForWind - Center for Wind Energy Research at the University of Oldenburg (*Measurement based wind field reconstruction and wind farm control optimization*)
05/2020–07/2021	Wind resource assessor at wind farm developer UKA, Meissen, Germany (*Energy potential assessment for wind farm sites*)
10/2018–03/2020	Research assistant at Leibniz Institute for Tropospheric Research, Leipzig, Germany (*Implementation of a particle based cloud microphysics simulation module*)
10/2017–07/2018	Student teaching assistant at University of Freiburg, Institute of Physics, Germany (tutoring in *classical mechanics, thermodynamics and electrodynamics*)
07/2016–09/2017	Full-time intern (three months) and subsequent student research assistant at Fraunhofer Institute for Solar Energy Systems, Freiburg, Germany (*Project: Artificial Neural Networks for Use in Solar Thermal Energy*)

Education (Theses and codes available on https://github.com/JanKBohrer)

Since 10/2022	PhD Student at the University of Oldenburg, Institute of Physics, Group Wind Energy Systems, supervised by Prof. Kühn
09/2021–07/2022	Post-graduate study program Research Master in Fluid Dynamics at the von Karman Institute for Fluid Dynamics, Belgium
	Degree Research Master in Fluid Dynamics (With honors; Grade 88/100)
	Research master project at the Department for Environmental and Applied Fluid Dynamics (Prof. van Beeck): "*Development of a miniature Doppler lidar for velocity measurements of small particles and droplets*"
10/2016–11/2019	Study program M.Sc. Physics at University Freiburg, Germany
	Degree M.Sc. Physics (With honors; Grade 1.1 (excellent))
	Master thesis at Leibniz Institute for Tropospheric Research, Leipzig in cooperation with University Freiburg, Institute of Physics (Prof. Schilling): "*Modeling and simulation of atmospheric cloud droplets*"
10/2011–09/2015	Study program B.Sc. Energy Science at University Duisburg-Essen, Germany (four-year Bachelor-plus program, incl. one year abroad)
	Degree B.Sc. Energy Science (With distinction; Grade 1.0 (very good))
	Bachelor thesis at University Duisburg-Essen, Faculty of Physics (Prof. Wolf): "*Molecular dynamics simulation of heat transfer at silicon grain boundaries*"
08/2013–07/2014	ERASMUS study program (two semesters) at NTNU Trondheim, Norway

PUBLICATIONS, POSTERS AND PAPERS (AVAILABLE ON https://github.com/JanKBohrer)

Journal article	J.K. Bohrer, K. Schröer, L. Brendel and D.E. Wolf. 'Thermal resistance of twist boundaries in silicon nanowires by nonequilibrium molecular dynamics'. *AIP Advances* **7**, 045105, 2017 (https://doi.org/10.1063/1.4979982)
Conference poster	J.K. Bohrer and O. Knoth. 'Euler-Lagrangian cloud model with dynamic particle forces'. Workshop on Eulerian vs. Lagrangian cloud microphysics, Cracow, Poland, April 15-17, 2019 (http://ww2.ii.uj.edu.pl/~arabas/workshop_2019/)
Conference poster	J.K. Bohrer and O. Knoth. 'Discrete particle methods for a scalable atmospheric dynamics solver'. Fourth Leibniz Mathematical Modeling and Simulation Network days, Kühlungsborn, Germany, March 20-22, 2019 (https://www.wias-berlin.de/workshops/MMSDays19/)
Conference poster	W. Kramer, J.K. Bohrer and M. Bitterling. 'Künstliche Neuronale Netzwerke für die Anwendung in der Solarthermie'. In Ostbayerisches Technologie-Transfer-Institut e.V. -OTTI-, Regensburg, 27. Symposium Thermische Solarenergie, Bad Staffelstein, 2017, pp. 36-37 (ANNSolar: https://www.ise.fraunhofer.de/en/research-projects/annsolar.html)
Term paper	J.K. Bohrer. 'Generation of Markov state models for the description of protein dynamics from molecular dynamics simulation data'. Term paper in Stochastic Dynamics, 2018. University Freiburg, Institute for Physics. (https://github.com/JanKBohrer/Publications-Posters-and-Papers/blob/master/Bohrer_2018_Term_Paper_Markov_State_Models.pdf)

ACADEMIC SERVICES

09/2021–06/2022	Research Master student representative at the von Karman Institute for Fluid Dynamics, Belgium
10/2011–09/2013	Student member of the Energy Science program examination board at University Duisburg-Essen, Germany

VOLUNTEERING AND CIVILIAN SERVICE

09/2017–07/2018	Voluntary work in the sustainability working group of non-profit association "Weitblick", Freiburg, Germany
02/2016–05/2016	Voluntary work at energy self sufficient ecological project "Sunseed Desert Technology" in Spain and several ecological projects in Portugal
07/2009–03/2010	Civilian service at Workers' Welfare Association (AWO), Bremen, Germany

LANGUAGES

German	native
English	fluent

SOFTWARE AND PROGRAMMING SKILLS

Python	Advanced
C++	Beginner
UNIX, LaTeX & Git	Intermediate
OpenFOAM (CFD)	Beginner
Cadence Omnis (CFD)	Beginner
EMD windPRO	Intermediate
Windographer	Beginner

INTERESTS

- Dynamics of complex systems, atmospheric physics and wind farm modeling
- Sustainability in technology and society, transition to renewable and decentralized energy generation
- Climate change mitigation and resilience of ecological and social systems
- Understanding and preservation of natural ecosystems
- Attending climate camps for skill sharing and knowledge transfer