Meteorologisk institutt

Jobbnorge ID: 298715
Deadline: 14.04.2026
Website: https://www.met.no/
Scope: Fulltime
Duration: Permanent

About us

The Norwegian Meteorological Institute (MET Norway) opens a permanent position as Research Scientist in AI-based Weather Prediction at the Development Centre for Weather Forecasting. The successful candidate will advance the development of data-driven weather prediction models and contribute to research on machine learning methods for high- resolution forecasting and observation-driven prediction systems, including the use of satellite and other remote sensing observations.

MET Norway has recently developed Bris, a data-driven weather prediction model based on graph neural networks. Bris is a global model with a flexible stretched grid, allowing higher resolution to be dedicated to specific focus areas while maintaining lower resolution elsewhere. At MET Norway the model is configured with 2.5 km resolution over the Nordic and Arctic regions while retaining 31 km resolution globally. The Anemoi framework serves
as a unifying technical platform for model training, evaluation, and deployment across the consortium, fostering code and data sharing and reducing duplication of effort.

Bris is trained on analyses and reanalyses at different spatial resolutions produced by assimilating observations in numerical weather prediction models, including large volumes of satellite and other remote sensing data. Initial experiments show benefits from incorporating observations directly in the training process. However, several challenges remain in effectively combining heterogeneous data sources and producing consistent initial conditions for ML-based weather forecasts.

Research Scientist - AI and Observation-Driven Weather Forecasting

About the position

The work in this position will address key research questions in machine learning for Earth system modelling, with particular focus on Nordic weather conditions. Optimisation of large ML models and exploration of ensemble approaches will be important for developing configurations that support accurate and reliable weather prediction. Another key topic is the development and extension of ML-ready datasets, including the handling and preprocessing of large volumes of satellite and other observational data. The results will contribute to the rapid evolution of machine learning in weather science and support the role of data-driven prediction models in the weather forecasting value chain, including improved services such as Yr.

The position will also contribute to the development of Destination Earth’s configurable regional AI modelling capability, which aims to enable flexible regional AI-based weather prediction systems across Europe. In particular, the work will support development of a guided diffusion framework that generates regional atmospheric initial states by combining global analyses with observations. This includes developing methods for consistent observation integration and exploring sampling and ensemble strategies to balance forecast skill, robustness, and computational efficiency.

The position will work in collaboration with the ECMWF Machine Learning Pilot Project (MLPP). With 18 partner organisations and more joining, MLPP spans the entire forecasting chain—model development, data assimilation, uncertainty quantification, and operational integration—while emphasising high-resolution and limited-area modelling, shared MLOps infrastructure, and capacity building. Particularly relevant for this position is work on hybrid and fully ML-based data assimilation, bias correction in variational schemes, graph neural network (GNN)-based analyses, and end-to-end observation-driven forecasting systems.

The Development Centre for Weather Forecasting includes around 50 research scientists from natural and social sciences and 10 research meteorologists, located in Oslo, Tromsø, and Bergen. The Centre has scientific responsibility for the full spectrum of research, development, implementation, and operation of MET Norway’s weather forecasting models and systems. In collaboration with the directors of the Ocean Division and the Climate and Environment Division, it also coordinates research activities across the institute.

Emphasising a user-informed, research-driven approach, the Centre benefits from strong national and international collaboration and substantial external funding. Its organisation is designed for flexibility and responsiveness, particularly in engaging with users and stakeholders to fulfil MET Norway's responsibility for continuous, high-quality services. Through the internal initiative Værio, the Centre develops and delivers data, products, and services in collaboration with government agencies, municipalities, and other partners. It plays a key role in the ongoing evolution of Yr as a leading digital forecasting platform, with strong focus on innovation and user experience. The Centre also ensures the continued development of api.met.no for public access to weather data and contributes to internal tools that improve workflow and operational efficiency.

The position is located in Oslo. The work language at MET Norway is Norwegian. For all applicants fluency in written and spoken English is required, and for foreign applicants a willingness to learn Norwegian. Training courses will be provided.

Work areas

- Develop data-driven weather forecasting models that integrate satellite and other observational data.
- Create and maintain ML-ready datasets and data pipelines, supporting preprocessing and efficient handling of large observational datasets.
- Evaluate and validate forecast performance using independent observational datasets and verification methods.
- Contribute to open-source software development and support the transition from research to operations, including engagement with stakeholders and users.
- Participate in national and international research projects, including proposal writing and scientific publications.

Skills and qualifications

- PhD in meteorology, geophysics, statistics, computer science, physics, applied mathematics, or equivalent.
- Expertise in handling and preprocessing large observational datasets, including satellite data, for use in ML-based weather prediction and data assimilation.
- Strong machine learning skills, including experience with graph neural networks, transformers, or diffusion models, and proficiency in at least one framework (PyTorch, TensorFlow, JAX).
- Experience in software development, collaborative coding, and building ML-ready datasets (Python or similar).
- Knowledge of forecast verification, observation impact analysis, and model evaluation methods.
- Excellent analytical, collaborative, and communication skills, with the ability to work independently in interdisciplinary teams.
- Experience with data assimilation methods is an advantage.

We can offer

- Good working environment and professional challenges in a modern, technological environment
- Membership in the Statens Pensjonskasse (SPK) with good schemes for pensions, insurances and mortgages (read more here: https://www.spk.no/Medlemskap-i-SPK/)
- The first 6 months is a mutual trial period.
- The position is paid in accordance with the main tariff agreements in the state as (1109), according to qualifications. Salary range NOK (530.000) - NOK (750.000). Higher wages may be considered for particularly qualified persons.A 2% statutory contribution to the Statens Pensjonskasse is deducted from the salary.

Diversity and positive discrimination

We believe that diversity is a strength, and want employees with different skills, subject combinations, work experience, gender, life experience and perspectives.We encourage all qualified candidates to apply for a job with us regardless of ethnic background, age or ability.

We practice positive discrimination, and will call at least one qualified applicant in each of these groups for an interview: applicants with a disability, immigrant background or gaps in the CV.To be considered in one or more of these categories, you must mark the appropriate category in your application.

Functional impairment: applicants who need accommodation in the workplace or in the working relationship.

Immigrant background: applicants who have themselves immigrated to Norway. Or who was born in Norway with two parents who both immigrated to Norway.

Gaps in CV: applicants who have had a break from work, education or training for a total of at least two years in the last five years due to e.g. physical or mental illness or injury, intoxication or punishment.

The ticks can be used for anonymised statistics or reporting purposes.

Publication of applicant lists for public sector positions is an important principle to ensure transparency. If you want your name to be excluded from the applicant list, you must ask for it yourself, and give us a reason. In order to be exempted from the public applicant list, your justification

for exemption must outweigh the consideration of transparency in the applicant list. If your request is not accepted, you will have the opportunity to withdraw your application.

The application

The application with CV and other attachments is sent electronically via Jobbnorge.no. Attach certificates and all pages of diplomas. The documents must be in Norwegian, a Scandinavian language or English. Translations must be authorized. Before any employment, we will check the documents. In the case of foreign education, we ask that you attach an explanation of the grading system.

Additional information

Contact person:

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Place of service:

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