Internship (m/f/x): Software Development for Solar Power Plant Monitoring and Forecasting

Stellenanbieter: Deutsches Zentrum für Luft- und Raumfahrt e.V. (DLR)

Internship: Software Development for Solar Power Plant Monitoring and Forecasting

Your mission:

The Energy Meteorology Group collects meteorological data and identifies parameters essential for the design, operation, and qualification of solar power plants. The team has developed software tools to measure and forecast solar irradiance, analyze solar module soiling and determine other parameters such as albedo using ground-based cameras and satellite data. As an intern, you will support the team in maintaining and developing these software tools, contributing to cutting-edge research in renewable energy.

Your tasks will be:

- Explore the research environment and become familiar with the software tools, data management and methodologies used in energy meteorology.
- Actively maintain and enhance Python and Matlab code, including implementing new features, improving existing processes, profiling, testing and writing documentation.
- Develop and implement automated (unit) tests to ensure software reliability and performance.
- You are encouraged to contribute your own ideas to enhance code structure, optimize processes, and improve data management practices.
- Collaborate with colleagues on code review and utilize GitLab for version control.

We've got a great offer for you:

- A collaborative, diverse, and motivated team committed to building a sustainable future.
- Opportunities to work closely with colleagues and tutors, exchanging ideas and solving challenges.
- Hands-on experience in software development, automatic testing and version control.
- Exposure to cutting-edge technologies in image processing, computer vision and machine learning.
- A chance to contribute to climate change mitigation and advance renewable energy solutions.
- Option to write a Bachelor's or Master's thesis following your internship.
- A position based in Almería, Spain, a sunny city on the Mediterranean coast.

Your qualification:

- You have a good academic record in a Bachelor's/Master's/Diploma program in the fields of in computer science, physics, engineering or similar.
- Background in Python and/or Matlab development for scientific or engineering applications.
- Experience in version control systems (git and gitlab) for collaborative development and code management.
- Hands-on expertise in writing and maintaining unit tests using automated testing tools such as pytest is a plus.
- The ability to work independently and collaborate in an international team
- Confident in speaking and writing English
- Prior experience or interest in data analysis, computer vision and machine learning is an advantage.

If this sounds like an exciting opportunity for you, please contact us! Dr. Bijan Nouri (Bijan.nouri@dlr.de +49 2203 6014 160). Please enclose supporting documents for the above points with your application.

Stellenanbieter: Deutsches Zentrum für Luft- und Raumfahrt e.V. (DLR)
Institut für Solarforschung
Calle Doctor Carracido 44
04005 Almeria, Spanien

WWW: http://www.dlr.de/sf

Ansprechpartner: Anja Kruschinski, Dr. Bijan Nouri
Telefon: +34696108575, +4922036014160
E-Mail: Bijan.nouri@dlr.de

Online-Bewerbung: anja.kruschinski@dlr.de

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