



Application Engineer – WindSim Power Line Solution

Location: San Diego, California

About WindSim Power

WindSim Power is seeking a candidate for a full-time Application Engineer position.

WindSim Power is dedicated to the transition to a renewable and sustainable global energy system by providing the most accurate wind modeling and forecasting to the electric power sector. A big part of the world's electricity decarbonization challenge lies in expanding transmission capacity for renewables — and according to energy experts, Europe and the US are falling behind on that task. Meanwhile, U.S. consumers pay more than \$6B in transmission congestion costs, resulting in hundreds of GW (gigawatts) of renewable energy stuck in interconnection queues, waiting to connect to the grid. At the same time, grid utilization rates are often as low as 30-50%, meaning there is excess capacity on today's wires that could be leveraged to solve these problems.

Solutions will require game-changing technology that can significantly increase the utilization of the electric grid. WindSim Power understands that grid-enhancing technologies (GETS) are cost-effective tools to unlock capacity and bridge current infrastructure to the future. WindSim Power's accurate wind models help TSOs (Transmission System Operators) optimize the utilization of existing transmission infrastructure through real time and non-intrusive wind-cooling insights.

WindSim Power leverages experience from servicing customers and collaborating with partners in more than 50 countries and the parent company, WindSim, is a pioneer in creating accurate models of local wind patterns using CFD (Computational Fluid Dynamics), AI (Artificial Intelligence) and cloud computing technologies.

In WindSim and WindSim Power, cross functional teams of computer scientists, wind engineers, meteorologists, fluid dynamics specialists, Director of Product Managements and marketeers work to create value for customers and societies.

About the Position

WindSim Power Inc. seeks a highly motivated individual for an Application Engineer position and be a key member of our project and product development team in San Diego, CA. The team is responsible for developing and testing real-time and forecast models, software products, and services – offerings that enable our targeted industries to make the most out of expert wind knowledge.

The key responsibilities for this position include delivering software products to the market, taking charge of all software development and related project tasks, and engaging with clients and stakeholders as a reference for addressing any technical questions or issues.

Responsibilities Include but are not limited to

- Contribute to the development and success of simulation-based software solutions that solve practical problems in renewable energy.
- Provide technical support to clients and stakeholders.
- Gather information from WindSim Power Line customers on their needs and helping to design the software to match their needs.
- Work closely with other members of our WindSim Power Line team and external collaborators.
- Be a member of a cohesive and highly collaborative group with a clear mission to execute project tasks and contribute to product development and services.
- Take charge of all aspects of the application for future upgrades and maintenance.
- Contribute to modeling, analysis, and software development and test new/existing simulation and forecasting solutions.
- Perform validation engineering tasks including setting up simulation cases, managing runs and output data, processing and analyzing results, writing up analyses, and preparing presentations about the results and work performed.

Qualifications

- BS, MS, or PhD in Meteorology, Physics, Mechanical Engineering, Wind Engineering, Software Engineering or related field.
- 5+ years of graduate level and/or industry experience.
- Experience in providing technical support to various stakeholders.



- Experience in software development.
- Experience in meteorological forecasting and/or strong knowledge of physics and statistics.
- Self-starter, motivated, strong work ethic, ability to thrive in a fast-paced environment.
- Excellent problem-solving skills and well organized.
- Ability to apply his/her talents cooperatively as part of a team of professionals.
- Strong oral and written communication skills.
- U.S. citizen.

Bonus Qualifications

- Background in fluid mechanics and CFD particularly for wind flow modeling over complex terrains.
- Experience using commercial solvers (such as WindSim) or programming languages used for high performance analysis and computing (Python, Matlab, or Java)
- Experience with GIS software (such as Global Mapper, QGIS), time-series analysis software (such as Windographer, Matlab), and databases (such as PostGres) is a plus.
- Experience installing and managing automatic weather stations.
- Knowledge of SaaS applications, cloud computing, and cybersecurity.

What we offer

- Small organization where the contribution from each employee has tangible impact
- Empowerment and ability to grow with company
- International team of highly competent colleagues with expertise in wind energy
- Co-working offices in California, Idaho, Oslo, and Tønsberg
- Possibility to participate in employee shareholder program