

Kurt Rhee

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EDF Renewables San Diego, CA • 4 years +

Manager Engineering Analytics December 2020 - Present

- Supervised 1 Sr. Engineer and 1 intern in studying bifacial gain, ARC degradation, soiling, etc.
- Created EDFR's python package for studying solar asset performance
- Developed a sensor drift detection algorithm for flagging irradiance data for analytics.

Senior Research & Development Engineer March 2020 - December 2020

- Developed a novel optimization tool and a novel cluster equalization algorithm using graph theory techniques which automate the design of solar plant layouts, CAPEX quantities estimation, and significantly increases the IRR of EDFR's solar portfolio.
- Developed a revenue maximizing convex optimization model for Solar and Storage modeling.
- Improved EDFR's understanding of non-gaussian uncertainty by implementing a kernel density based method for variability at non-annual timescales.
- Improved EDFR's ability to perform long term correlations by developing a Kolmogorov-Smirnoff, DirInt based statistical correlation tool.

Solar Engineer October 2016 - March 2020

- Replaced myself in terms of man-hours saved by automating and streamlining EDFR's energy prediction tool, test facility data pipeline and analysis tool, and developed a monte carlo based soiling/cleaning optimization tool.
- Completed IE verified resource assessment and performance modeling studies using PVSyst, SAM, PlantPredict and AutoCAD for EDF grid scale solar and storage projects (~740MW COD) in the U.S. and Mexico.

Sunrun Irvine, CA - 1 years, 3 Months

PV Design Supervisor March 2016 - September 2016

- Supervised and drove efficiency in a team of 15 PV Designers, interviewed new design candidates.
- Automated Key Performance Indicator calculations, which reduced Sunrun supervisory staff needs by 1/2.

Senior PV Systems Designer October 2015 - March 2016

- Formally trained new PV designers and wrote training manuals to improve PV Designer ramp up.
- Created a data driven methodology to inform layoff decision making for upper management.

PV Systems Designer July 2015 - September 2015

- Exceeded monthly design expectation by at least 200% for every month as a designer and set company wide speed and efficiency records.

Publications

- **Spectral Clustering Based Optimization and Automation of Utility Scale Site Design** Photovoltaic Specialists Conference 2020 Advanced Numerical Methods and Techno Economic Analysis

University of California at San Diego San Diego, CA - 5 years

Bachelor of Science in Nanoengineering 3.1 GPA / 3.3 Upper Division GPA