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# Trudie Wang

Mission driven with a decade of experience in developing disruptive products and technologies that push towards a more sustainable planet and enable us to intelligently address the nexus of interdependent infrastructures that we depend on. Keen bent towards design that allows us to utilize our resources with a *do more with less* mindset. An infectious enthusiasm and unbridled passion that is coupled with a knack for communicating this energy to motivate and lead team members to reach goals.

## KEY SKILLS

- Deep knowledge and expertise in **optimization and predictive modeling**, **renewable energy systems**, **power grids** and **transactive energy markets**, **sustainable ecosystems** and **circular economies**.
- Experience in the architecture, implementation and management of projects for deploying **distributed energy resources (DERs)**, control and optimization of **microgrids** and **resource aggregation**.
- Solid background and on-the-ground experience with **algorithms**, **analytics** and **quantitative analysis**.
- **Roadmapping** and **strategic planning** with industry stakeholders and partners to ensure **current product market fit** and alignment with a path to **disruptive technology paths**
- Strong **research** and **critical thinking** skills, coupled with a knack for **technical communication**.
- Experience in **project** and **product technical documentation,** as well as reviewing and writing **go-to-market requirements** and **proposals**.
- Creative, resourceful and flexible, able to adapt to changing priorities and maintain a positive attitude and strong work ethic.
- **Leading and mentoring mission driven and diverse teams** of algorithm engineers and product managers.

## EXPERIENCE

### Heila Technologies, California

*VP of Innovation,* Jan 2023 - Dec 2024
*VP of Product,* Jan 2021 - Jan 2023
*Product Strategy Lead,* May 2020 - Jan 2021

- Drive product strategy, roadmap, and development with a scalable market solution centered around a proactive consumer
- Work with engineering and product teams to turn ideas into implementable solutions, turning product into something driven and focused on disrupting the industry while focusing on the end user
- Lead teams during experimental tests and product releases, including managing product roadmaps, ownership of timelines, milestones, and deliverables
- Develop communication strategies to convey concepts to customers, collaborators, and other industry stakeholders
- Interact with industry stakeholders and partners to understand their needs and ensure the customer plays an integral partnership with the technology
- Algorithm and software design and planning for distributed and renewable resources
- Lead algorithm and product team, heading sprints for production-ready distributed optimization and controls platform

### Growing Energy Labs Inc, San Francisco

*Staff Analytics Engineer,* Dec 2017 - May 2020

*Senior Analytics Engineer,* Aug 2015 - Dec 2017

- Developed aggregation architecture and algorithms for virtual power plant optimization and control policies
- Analysis of DER response on the power grid through modeling and analysis

**SolarCity, San Francisco**

*Power Systems Engineer,* Aug 2014 - June 2015

- Analysis of DER response on the power grid through modeling and analysis
- Project management of DER integration pilots to accelerate integration and penetration of intermittent solar resources

**Electric Power Research Institute, Palo Alto**

*PhD Thesis work as Graduate Student Intern* Sept 2010 - Nov 2012

- Optimization of DER control through dynamic and distributed algorithms
- Quantify load balancing and deferment potential of DERs in power grid scenarios featuring greater integration and penetration of Distributed Generation and intermittent renewable resources

## EDUCATION

**Stanford University, CA** – *Ph.D. Mechanical Engineering,* Sept 2007 - JUNE 2014

Renewable Energy Systems and Modeling, Controls and Optimization, Demand Response on the power grid, Distributed Generation and Grid Integration of Renewables, Design for Large scale Transformation, Global Project Finance, Nanophotonics and plasmonics, Electrical and optical properties of nanostructures

**Stanford University, CA** – *M.S. Mechanical Engineering,* Sept 2005 - JUNE 2007

Energy Systems Modeling, Photovoltaic Light Trapping and Nanotechnology, Automatic Feedback Control System Design and Construction

**University of California Berkeley, CA** – *B.S. Mechanical Engineering, Honors,* Sept 2001 - Dec 2004

## PUBLICATIONS

T. Wang, D. O'neill, H. Kamath, **Dynamic Control and Optimization of Distributed Energy Resources in a Microgrid**, IEEE Transactions on Smart Grid, vol. 6, no. 6, pp. 2884-2894, (2015).

T. Wang, H. Kamath, S. Willard, **Control and Optimization of Grid-tied Photovoltaic Storage Systems using Model Predictive Control**, IEEE Smart Grid Transactions, (2014).

T. Wang, P. Peumans, **Designing a Metallic Nanoconcentrator for a lateral Multijunction Photovoltaic Cell**, Journal of Applied Physics, (2011).