

# Gregory Kimball

✉ [gregorykimball@gmail.com](mailto:gregorykimball@gmail.com)

✉ [kimballgregory](https://www.linkedin.com/in/kimballgregory/) | 🌐 [gregorykimball.me](http://gregorykimball.me) | 🗣 [GregoryKimball](https://www.linkedin.com/in/GregoryKimball/) | 📞 +1 321 506 0039

Experienced, hands-on technical leader building new technologies and driving product excellence

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## Professional Experience

### Software Engineering Manager

NVIDIA

2021 – present

Santa Clara, CA

- Leading development for `libcudf`, the CUDA C++ library for columnar data processing that powers RAPIDS and the Spark-RAPIDS plugin.
- Check out my publications on accelerated computing in NVIDIA's technical blog.

### Senior Software Engineering Manager

SunPower Corp

2019 – 2021

San Jose, CA

- My team builds and owns controller firmware, IoT monitoring, and operations infrastructure for SunPower's Helix Storage commercial battery energy storage product. (Python, C++, AWS)
- Led the effort to expand continuous integration including unit tests, hardware-in-the-loop functional tests, and cloud-to-edge functional tests. (Python, C++, googletest, Buildbot)
- Developed machine learning method based on generative-adversarial networks for synthesizing solar resource data and published at 48th IEEE PVSC. (Python, Keras, TensorFlow).

### Principal Software Engineer

SunPower Corp

2016 – 2019

San Jose, CA

- Created simulations platform to compute project-specific risk profiles based on Lambda microservice and Monte Carlo scenario generator. (Python, AWS)
- Anchored valuation for 233 MW of commercial solar project leases with long-term energy forecasts and energy loss accounting. (Python, pvlib)

### Characterization and Modeling Engineer

SunEdison Inc, Miasole Hi-Tech, Nanosolar Inc

2011 – 2016

SF Bay Area

- Developed analytics software for performance of photovoltaic systems and defended higher valuation for solar lease portfolio. (Python, C#, R, rdtools)
- Developed hardware control and computer vision software as part of US\$360M in equipment sales. (C#, Python)
- Created computer-aided design tools for top electrode manufacturing in solar cells that delivered cost and performance improvements. (C#, SPICE)

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## Education

### Ph.D. Applied Physics

California Institute of Technology

2006 – 2011

Pasadena, CA

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## Technical Skills

**AWS Products:** Lambda, DynamoDb, EC2, EB, S3, CloudFormation

**Scientific Writing:** [gregorykimball.me/publications-master/](http://gregorykimball.me/publications-master/)

**Federal Grant Reviews:** 2015-present, U.S. Department of Energy (SETO, SIPS, SBIR, PVRD, ARPA-E)