

Gregory Kimball

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

Professional Experience

Software Engineering Manager

2021 – present

NVIDIA

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

2019 – 2021

SunPower Corp

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

2016 – 2019

SunPower Corp

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, pvlb)

Characterization and Modeling Engineer

2011 – 2016

SunEdison Inc, Miasole Hi-Tech, Nanosolar Inc

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)

Education

Ph.D. Applied Physics

2006 – 2011

California Institute of Technology

Pasadena, CA

Technical Skills

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

Scientific Writing: gregorykimball.me/publications-master/

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