Ying Li

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Highlights

- 10+ years of research experience in big data analysis and scientific modeling with 20 peer-reviewed publications
- Strong communication skills with lots of experience presenting work over 50+ conferences, workshops and seminars
- Good collaboration skills with many global collaborators on different projects

Education

- **Princeton University** Princeton, NJ
  Ph.D. in Atmospheric and Oceanic Sciences *Nov. 2011*
- **Institute of Atmospheric Physics, Chinese Academy of Sciences** Beijing, China
  M.S. in Atmospheric Physics *Jun. 2006*
- **Zhejiang University** Zhejiang, China
  B.S. in Atmospheric Sciences *Jun. 2003*

Experience

- **Colorado State University** Fort Collins, CO
  Research Scientist II *Aug. 2016 - Present*
  - Designed and performed numerical experiments by changing the cloud components in the numerical models to investigate the feedbacks from clouds on the climate. Provided directions for reducing the model biases.
  - Performed data mining on data in time and space dimensions with time and space filtering, PCA, power spectral analysis, regression. Discovered a robustly periodic behavior that can be used for climate predication.

  Postdoctoral Scientist *Jan. 2012 - Jul. 2016*
  - Developed pipelines to download, clean, process, aggregate, and mine ∼400 millions remotely sensed profile datasets, and quantity relationships among the newly defined metrics. Provided a baseline for evaluating model physical parameterizations in comprehensive climate models.
  - Used statistical analysis to quantify inter-model spread in circulation responses to global warming in multi-model climate change simulations. Provided the uncertainty attributions to climate change simulation.
- **Princeton University** Princeton, NJ
  Research Assistant *Sep. 2006 - Nov. 2011*
  - Performed data mining over 2000-yr climate model outputs with automatic strong/weak episodes detections, smoothing, PCA, regression, composite analysis. Provided comprehensive picture of the global teleconnectivity.
  - Designed numerical experiments with global climate models to rigorously test the guiding hypothesis based on the observational data and model output. Provided evidences on the relative roles of surface boundary conditions over the particular sectors in the globe.

Other Experience

- Successfully brought in ∼$1,000,000 in funding from NSF and NASA by leading projects as PI
- Mentored one PhD student and served as thesis committee member
- Provided services for reviewing articles over 15+ scientific journals
- Served as conveners and chairs for 5 different scientific meetings
- Provided data analysis over a range of datasets and topics, and generated high-quality graphics for the textbook

Side Projects

- Using Python and Tableau to built interactive dashboard on COVID19 data
- Build a machine learning model using Python scikit-learn to classify positive or negative Amazon review comments

Technical Skills

- **Programing tools**: Python, MATLAB, SQL, PostgreSQL, Shell scripting, ArcGIS, Fortran, C
- **Statistical/Machine Learning tools**: Linear/Logistic Regression, Decision Trees, GBM, Random Forest, Neural Networks, Time Series, PCA, Clustering
- **Data Visualization tools**: Tableau
- **Version Control**: Git
- **Online certificates**: AWS Certified Cloud Practitioner, Machine Learning (Coursera), Data Scientist with Python (26 courses on Datacamp)