

Yuping Lu

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GITHUB: github.com/YupingLu
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EDUCATION

The University of Tennessee, Knoxville, TN Aug. 2013 - Aug. 2019
Ph.D. in Computer Science
Research Interests: Graph Algorithms, Machine Learning
Advisor: Dr. Michael A. Langston | GPA: 3.91

Nanjing Agricultural University, Nanjing, Jiangsu Province, China Sept. 2007 - May 2011
BEng in Computer Science
Advisor: Dr. Huanliang Xu | GPA: 3.64

EXPERIENCE

Postdoctoral Scholar at **the Advanced Light Source** Sept. 2019 - present
Berkeley Lab

- Applying and developing Machine Learning schemes to enhance accelerator control.
- Applying to the operating accelerator.

Graduate Research Assistant at **ARM Data Center** Oct. 2017 - Aug. 2019
Oak Ridge National Laboratory

- Radar data (NEXRAD, ARM CSAPR) classification using convolutional neural networks.
- Detecting outliers in streaming time series data from ARM distributed sensors.

Graduate Research Assistant at **Office of Information Technology** July 2014 - Oct. 2017
The University of Tennessee, Knoxville

- University web server configuration and optimization.
- Google Search Appliance administration and implementation.

Research Intern at **the Scientific Data Group**
Oak Ridge National Laboratory

- Developed pbdR tools for singularity container.
- Implemented an R package [pbdADIOS](#) to connect R with ADIOS

Graduate Research Assistant at **Dr. Michael A. Langston's lab** Aug. 2013 - June 2014
The University of Tennessee, Knoxville

- Upgraded [GrAPPA](#) which is a web-based interface for graph theoretical tools.

R PACKAGES

- [biclique](#): Maximal Biclique Enumeration in Bipartite Graphs
- [pbdADIOS](#): an R wrapper for ADIOS

TECHNICAL SKILLS

Programming languages: C/C++, Python, R, PHP, HTML+CSS+JS
Softwares: PyTorch, Jupyter, NumPy, NetCDF, Docker, Git, LaTeX

HPC experience: ORNL CADES, LBNL NERSC

ACTIVITIES AND AWARDS

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| Graduate Student Senate Travel Award, the University of Tennessee, Knoxville. | 2018 |
| Reviewer for the 9th International Workshop on Algorithms and Computation. | 2015 |
| Reviewer for the 9th International Workshop on Frontiers in Algorithmics. | 2015 |
| Student Volunteer for XSEDE14 : Atlanta, GA, USA. | July 13-18, 2014 |
| Department excellence award, the University of Tennessee, Knoxville | 2013 |
| Outstanding graduate and several scholarships, Nanjing Agricultural University | 2007 - 2011 |

PUBLICATIONS

1. Biclique: Maximal Biclique Enumeration in Bipartite Graphs
Yuping Lu, Charles A. Phillips, Michael A. Langston
BMC Research Notes – To be submitted.
2. Clique Selection and its Effect on Paraclique Enrichment: An Experimental Study
Yuping Lu, Charles A. Phillips, Elissa J. Chesler, Michael A. Langston
BMC Research Notes – Under review.
3. A Robustness Metric for Biological Data Clustering Algorithms
Yuping Lu, Charles A. Phillips, Michael A. Langston
BMC Bioinformatics – Accepted.
4. Convolutional Neural Networks for Hydrometeor Classification using Dual Polarization Doppler Radars
Yuping Lu, Jitendra Kumar
Proceedings of the 2019 IEEE International Conference on Data Mining Workshops (ICDMW 2019).
5. Detecting Outliers in Streaming Time Series Data from ARM Distributed Sensors
Yuping Lu, Jitendra Kumar, Nathan Collier, Bhargavi Krishna, Michael A. Langston
Proceedings of the 2018 IEEE International Conference on Data Mining Workshops (ICDMW 2018).
6. Enrichment vs Robustness: A Comparison of Transcriptomic Data Clustering Metrics
Yuping Lu, Charles A. Phillips, Michael A. Langston
BMC Bioinformatics 17 (10), 297, August 2016.
7. Digital Gene Expression Profiling of the Phytophthora Sojae Transcriptome
Wenwu Ye, Xiaoli Wang, Kai Tao, **Yuping Lu**, Tingting Dai, Suomeng Dong, Daolong Dou, Mark Gijzen, Yuanchao Wang
Molecular Plant-Microbe Interactions, 24(12):1530–1539, December 2011.

REFERENCES

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Accelerator Technology & Applied Physics Division
Lawrence Berkeley National Laboratory
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Jitendra Kumar
Research Scientist
Climate Change Science Institute
Oak Ridge National Laboratory

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