Jie Bu

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(540) 385 - 1315
[Github] [LinkedIn] [Google Scholar]

RESEARCH INTERESTS

Interested in **broad**-range of areas involving machine learning and data mining including:
- *Efficient machine learning, e.g, network pruning*, etc.
- *Physics-informed machine learning* [Info].
- *Graph representation learning.*

I am actively exploring new ideas and glad to learn about other areas.

PUBLICATIONS

NeurIPS 2021: "Learning Compact Representations of Neural Networks Using DiscriminAtive Masking (DAM)."
Jie Bu, Arka Daw, M. Maruf, Anuj Karpatne.
TL;DR: *One-shot structured network pruning without the need for finetuning.*

SDM 2021: "Quadratic residual networks: A New Class of Neural Networks for Solving Forward and Inverse Problems in Physics Involving PDEs."
Jie Bu, Anuj Karpatne.
TL;DR:*Parameter efficient neurons that can learn high frequency faster.*

For more publications, please refer to my *Google Scholar* page:
https://scholar.google.com/citations?user=ogW9GEoAAAAJ.

EMPLOYMENTS

ML Research Intern *June 2021 - Aug 2021*
Carbon Inc., Redwood City, California, United States
Graduate Research Assistant *May 2019 - Now*
Viginia Tech, Blacksburg, Virginia, United States
Graduate Teaching Assistant *Jan 2021 - Now*
Viginia Tech, Blacksburg, Virginia, United States

EDUCATION

Ph.D. in Computer Science (In Progress) *May 2020 - May 2023*
Virginia Polytechnic Institute and State University (Virginia Tech), Virginia, U.S.A

M.S. in Computer Science *Aug 2018 - May 2020*
Virginia Polytechnic Institute and State University (Virginia Tech), Virginia, U.S.A

B.S. in Communication Engineering, *Sep 2014 - Jun 2018*
Harbin Institute of Technology, Harbin, China

RELATED SKILLS

Programming: Proficient in Python; Intermediate in C/C++;

Machine Learning Framework: PyTorch (preferred)/Tensorflow.
Others: Scikit-learn, OpenCV, LaTeXetc.