Zitong Li

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GitLab: https://gitlab.com/zli96

Research Interests

- Scientific machine learning, high performance computing, and tensor decomposition algorithms

Education

University of California, Irvine Sep, 2022–current
Ph.D. in Computer Science
Advisor: Aparna Chandramowlishwaran

Wake Forest University Jan, 2020–May, 2022
M.S. in Computer Science
Advisor: Grey Ballard
Thesis: Efficient Computation of the Tucker Decomposition and Moment Tensor

North Carolina State University Fall, 2019

University of Nebraska-Lincoln Aug, 2014–May, 2018
B.S. in Computer Science

Academic Experience

Research Assistant Sep 2022–Sep 2023
University of California, Irvine

Research Assistant Jan 2021–May 2022
Wake Forest University

R&D Graduate Intern Summer 2021 and 2022
Sandia National Laboratories

Teaching Assistant
University of California, Irvine

EECS 215: Design and Analysis of Algorithms Fall 2023

Wake Forest University

CSC 111: Introduction to Computer Science Winter 2020

CSC 112: Fundamentals of Computer Science Fall 2020

Industry Experience

Software Developer 2018–2019
Quantum Workplace Omaha NE

Publications

*: equal contributions

1. [SC 2023] Arthur Feeney*, **Zitong Li***, Ramin Bostanabad, Aparna Chandramowlishwaran. Breaking Boundaries: Distributed Domain Decomposition with Scalable Physics-Informed Neural PDE Solvers. To Appear In *Proceedings of the International Conference on High Performance Computing, Networking, Storage and Analysis*. 2023. arXiv:2308.14258

2. [SIAM SISC] Rachel Minster, **Zitong Li**, and Grey Ballard. Parallel Randomized Tucker Decomposition Algorithms. *arXiv preprint*. 2023. arxiv:2211.13028

3. [PASC 2023] **Zitong Li**, Hemanth Kolla, and Eric Phipps. Parallel Memory-Efficient Computation of Symmetric Higher-Order Joint Moment Tensors. *Proceedings of Platform for Advanced Scientific Computing*. 2022. https://doi.org/10.1145/3539781.3539793

4. [ICPP 2021] **Zitong Li**, Qiming Fang, and Grey Ballard. Parallel Tucker Decomposition with Numerically Accurate SVD. *Proceedings of the 50th International Conference on Parallel Processing*. 2021. https://doi.org/10.1145/3472456.3472472

Scholarships and Awards

PhD Fellowship 2024
EECS Department, UC Irvine

IEEE TCHPC travel award November 2023
IEEE TCHPC

Argonne Training Program on Extreme-Scale Computing (ATPESC) July 2023
Argonne National Laboratories

- Intensive training on the key skills to design and implement applications on leadership-class computing systems

Full Tuition Scholarship Jan 2020–May 2022
Wake Forest University

- Merit based scholarship for graduate students making successful academic progress

Student Travel Award May 2021
SIAM Conference on Applied Linear Algebra

Student Travel Award Mar 2021
SIAM Conference on Computational Science and Engineering

Global Laureate Tuition Scholarship 2014–2018
University of Nebraska - Lincoln Half tuition

- The scholarship is awarded to international students who have demonstrated outstanding academic achievement.

Talks

- Breaking Boundaries: Distributed Domain Decomposition with Scalable Physics-Informed Neural PDE Solvers. Upcoming talk at SC23 on November 16, 2023
- Parallel Memory-Efficient Computation of Symmetric Higher-Order Joint Moment Tensors. SIAM Conference on Parallel Processing for Scientific Computing in February 2022
- Parallel Tucker Decomposition with Numerically Accurate SVD. International Conference on Parallel Processing in August 2021
- Parallel Tucker Decomposition with Numerically Accurate SVD. SIAM Conference on Applied Linear Algebra in May 2021