# Zitong Li

Email: zitongl5@uci.edu 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
- [SC 2023] Arthur Feeney\*, Zitong Li\*, Ramin Bostanabad, and Aparna Chandramowlishwaran. Breaking Boundaries: Distributed Domain Decomposition with Scalable Physics-Informed Neural PDE Solvers. Proceedings of the International Conference on High Performance Computing, Networking, Storage and Analysis. 2023. https://doi.org/10.1145/3581784.3613217
- 2. [SIAM SISC 2023] Rachel Minster, **Zitong Li**, and Grey Ballard. Parallel Randomized Tucker Decomposition Algorithms. arXiv preprint. 2023. arxiv:2211.13028
- 3. [PASC 2022] **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 and Presentations

- Domain Decomposition for Variable Coefficient Neural Poisson Solvers (Poster). SC'23 in November 2023
- Breaking Boundaries: Distributed Domain Decomposition with Scalable Physics-Informed Neural PDE Solvers. SC'23 in November 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