KE LI

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EDUCATION

ShanghaiTech University, China *September 2018 - Present*
Master in Computer Science under supervision of Qifeng Liao
School of Information Science and Technology

Chongqing University, China *September 2014 - May 2018*
Bachelor of Applied Mathematics. Rank: 3/25

RESEARCH INTERESTS

Deep learning

Domain decomposition method

Numerical method for PDEs

Uncertainty quantification

PUBLICATIONS

1. **Ke Li***, Kejun Tang*, Jinglai Li, Tianfan Wu, Qifeng Liao. "A hierarchical neural hybrid method for failure probability estimation". IEEE Access, in press. (*equal contribution)
2. **Ke Li***, Kejun Tang*, Tianfan Wu, Qifeng Liao. "D3M : A deep domain decomposition method for solving PDEs parallelly". (*equal contribution)

PROJECTS

Failure probability estimation *November 2018 - April 2019*
Collaborator : Kejun Tang, Jinglai Li, Tianfan Wu, Qifeng Liao

- Proposed a method constructing a hierarchy of neural networks with different fidelity to reduce runtime.
- Employed hybrid method to increase accuracy and efficiency.

Deep domain decomposition method *February 2019 - Present*
Collaborator : Kejun Tang, Tianfan Wu, Qifeng Liao

- Proposed a domain decomposition method in deep learning.
- Employed variational formulation to solve PDEs as an optimization problem.

HONORS AND AWARDS

Outstanding graduates award of Chongqing University in 2018.

The third price scholarship in Spring 2017.

The third price scholarship in Autumn 2017.

TALKS AND SEMINARS

1. K. Li. D3M : A deep domain decomposition method for solving PDEs parallelly. Annual meeting of China Society of Industrial and Applied Mathematics(CSIAM), September 19 – 22, 2019.
2. K. Li, K. Tang, Q. Liao. D3M : A deep domain decomposition method for solving PDEs parallelly. Annual meeting of China Society of Computational Mathematics(CSCM), July 31 – August 4, 2019.
3. K. Li, Q. Liao. Domain decomposition in physics-constrained deep learning framework with high-dimensional random inputs. 26th International Domain Decomposition Conference, DD XXVI, Hong Kong, China, December 2 – 6, 2019.

PROGRAMMING SKILL

Matlab, Python, Tensorflow, Pytorch, LaTeX