

DIAN LING

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RESEARCH INTERESTS

My research interests basically lie in the intersection of computer science and artificial intelligence, with a particular focus on:

- Cardinality Constraints in Satisfiability Solving
- Parallel Algorithm in Satisfiability Solving
- Combinatorial Optimization (e.g. Graph Theory)

Recently, I also read some papers about LLM which are combining LLM with automated reasoning to solve complex problems.

EDUCATION

2024 - 2026 <i>(expected)</i>	M.S. in Computer Science , Northeast Normal University <i>Advisors: Professor Minghao Yin and Associate Professor Shuli Hu</i> <i>Average Score: 85</i>
2020 - 2024	B.S. in Computer Science , Northeast Normal University <i>Advisors: Professor Minghao Yin and Associate Professor Shuli Hu</i> <i>Average Score: 88, Thesis: 9.5/10</i>

SELECTED PAPERS

- [2] **A Large Neighborhood Search with Deep Optimization for the Weighted Total Domination Problem in Massive Graphs**
*Shuli Hu, Wen Wen, **Dian Ling**, Jiaqi Li, Ziqing Liao, Ruizhi Li, Minghao Yin*
Submitted
- [1] **A Multi-start Algorithm with Iterated Decremental Local Search for Minimum Capacitated Dominating Set Problem in Large Graphs**
*Shuli Hu, Shuang Zhou, **Dian Ling**, Jiaqi Li, Ruizhi Li, Yupeng Zhou, Minghao Yin*
[J] Memetic Computing, Volume 17, Issue 3, Pages 36

RESEARCH EXPERIENCE

06/2023 - 08/2023	Institute of Computing Technology, Chinese Academy of Sciences <i>Visiting Student</i> <i>- Investigated the application and importance of sparse matrices in AI compilers</i> <i>- Assisted in mapping loop-level IR to Triton kernels.</i>
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SELECTED AWARDS & HONORS

2024 | **Outstanding Graduate Student**
Northeast Normal University

2021/2022/2024 | **Presidential Scholarship**
Northeast Normal University
Awarded to top 5% of students university-wide

2022 | **Meritorious Winner**
Consortium for Mathematics and its Applications

2021 | **Bronze Medal**
China Collegiate Programming Contest
The 15th Northeast Collegiate Programming Contest