

## Education

- 08/2018 – 11/2023      Ph.D. in computer engineering, **Chalmers University of Technology** (Sweden)  
Advised by Prof. Miquel Pericas  
Ph.D. thesis: *Adaptive Task Scheduling and Resource Management Techniques for Energy Efficiency in Multi-core Systems*
- 09/2015 – 07/2018      M.S. in computer science, **National University of Defense Technology** (China)  
Advised by Prof. Jianbin Fang and Prof. Weifeng Liu  
Thesis: *Implementing and Optimizing Alternating Least Squares on Many-Cores*
- 09/2011 – 06/2015      B.S. in computer science, **Southwest Jiaotong University** (China)  
Thesis: *Design of Interest Mining System Based on WEB Text*

## Work experience

- 05/2024 –      Postdoctoral researcher, **Chalmers University of Technology** (Sweden)
- 12/2023 – 04/2024      Research Assistant, **Chalmers University of Technology** (Sweden)

## Projects

- 03/2025 –      DARE: A new era for supercomputing in Europe  
**Chalmers University of Technology** (Sweden)  
*SYCL Compiler Development (AdaptiveCpp, OpenMP Backend)*
- 12/2021 –      EUPilot: Pilot using Independent Local & Open Technologies  
**Chalmers University of Technology** (Sweden)  
*High-performance OpenMP Task Runtime Development in LLVM*

04/2021 –	eProcessor - An Open Source Full Stack Ecosystem <b>Chalmers University of Technology</b> (Sweden) <i>Adaptive Task Scheduling for Energy Performance Trade-offs</i>
08/2018 – 12/2020	LEGaTO - The Low Energy Toolset for Heterogeneous Computing <b>Chalmers University of Technology</b> (Sweden) <i>Energy-Efficient Resource Management for Multi-Core Systems</i>
07/2016 – 02/2018	Performance Optimization of Alternating Least Squares (ALS) on GPUs <b>National University of Defense Technology</b> (China) <i>Development of Data Reuse/Reordering and Novel Compressed Sparse Matrix Format for GPU-Accelerated ALS</i>

## Teaching experience

2018 – 2024	High Performance Parallel Programming <b>Chalmers University of Technology</b> (Sweden) <i>Teaching assistant</i>
2021 – 2022	Sustainable Computing <b>Chalmers University of Technology</b> (Sweden) <i>Teaching assistant</i>
2018 – 2021	Parallel Computer Architecture <b>Chalmers University of Technology</b> (Sweden) <i>Teaching assistant</i>

## Supervision

2025	Long Cheng <b>Chalmers University of Technology</b> (Sweden) Research project: <i>KV Cache Quantization Technique in LLMs</i>
	Axel Carlsson, Edvin Mellberg <b>Chalmers University of Technology</b> (Sweden) Master's thesis: <i>ILAN: The Interference- and Locality-Aware NUMA Scheduler</i>
2022	Henrik Andersson, Carl Wiede <b>Chalmers University of Technology</b> (Sweden) Master's thesis: <i>Energy-Performance Balancing Task Scheduler for Asymmetric Platforms</i>

## Publications

- 2024 Sonia Rani Gupta, Nikela Papadopoulou, Jing Chen, Miquel Pericàs  
Co-Design of Convolutional Algorithms and Long Vector RISC-V Processors for Efficient CNN Model Serving  
*Proceedings of the 53rd International Conference on Parallel Processing (ICPP 2024)*
- Jing Chen, Madhavan Manivannan, Bhavishya Goel, Miquel Pericàs  
SWEEP: Adaptive Task Scheduling for Exploring Energy Performance Trade-offs  
*In 38th IEEE International Parallel & Distributed Processing Symposium (IPDPS 2024)*
- 2023 Jing Chen, Madhavan Manivannan, Bhavishya Goel, Miquel Pericàs  
JOSS: Joint Exploration of CPU-Memory DVFS and Task Scheduling for Energy Efficiency  
*In 52nd International Conference on Parallel Processing (ICPP 2023)*
- 2022 Jing Chen, Madhavan Manivannan, Bhavishya Goel, Mustafa Abduljabbar, Miquel Pericàs  
STEER: Asymmetry-aware Energy Efficient Task Scheduler for Cluster-based Multicore Architectures  
*In IEEE 34th International Symposium on Computer Architecture and High Performance Computing (SBAC-PAD 2022)*
- Jing Chen, Madhavan Manivannan, Mustafa Abduljabbar, Miquel Pericàs  
ERASE: Energy Efficient Task Mapping and Resource Management for Work Stealing Run-times  
*In ACM Transactions on Architecture and Code Optimization (TACO 2022)*
- 2021 Jing Chen, Jianbin Fang, Weifeng Liu, Canqun Yang  
BALS: A Blocked Alternating Least Squares Algorithm for Parallel Matrix Factorization  
*In IEEE Transactions on Parallel and Distributed Systems (TPDS 2021)*
- 2020 Jing Chen, Pirah Noor Soomro, Mustafa Abduljabbar, Madhavan Manivannan, Miquel Pericàs  
Scheduling Task-parallel Applications in Dynamically Asymmetric Environments  
*In 49th International Conference on Parallel Processing Workshops SRMPDS (ICPPW 2020)*
- 2019 Jing Chen, Madhavan Manivannan, Mustafa Abduljabbar, Miquel Pericàs  
Towards an Energy Aware Task Scheduler for Asymmetric Architectures  
*In 12th Nordic Workshop on Multi-Core Computing (MCC 2019)*
- 2018 Jing Chen, Jianbin Fang, Weifeng Liu, Tao Tang, Canqun Yang  
clMF: A Fine-Grained and Portable ALternating Least Squares Algorithm for Parallel Matrix Factorization  
*In Future Generation Computer Systems (FGCS 2018)*
- 2017 Xi Yang, Jianbin Fang, Jing Chen, Chengkun Wu, Tao Tang, Kai Lu  
High Performance Coordinate Descent Matrix Factorization for Recommender Systems  
*In ACM International Conference on Computing Frontiers (CF 2017)*

Jing Chen, Jianbin Fang, Weifeng Liu, Tao Tang, Xuhao Chen, Canqun Yang  
Efficient and Portable ALS Matrix Factorization for Recommender Systems  
*In 6th International Conference of Parallel and Distributed Processing Symposium Workshop ParLearning (IPDPSW 2017)*

Jing Chen, Jianbin Fang, Tao Tang, Canqun Yang  
Implementation and Performance Evaluation of Recommender Algorithms Based on Multi-/Many-core Platforms  
*In Computer Science 2017*

## Services

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| 2025 | 39th IEEE International Parallel & Distributed Processing Symposium (IPDPS)<br><i>External Reviewer</i><br><br>Design, Automation and Test in Europe Conference (DATE)<br><i>External Reviewer</i>                  |
| 2024 | The International Conference for High Performance Computing, Networking, Storage, and Analysis (SC)<br><i>External Reviewer</i><br><br>International Conference on Supercomputing (ICS)<br><i>External Reviewer</i> |
| 2023 | International Conference on Supercomputing (ICS)<br><i>External Reviewer</i><br><br>The Platform for Advanced Scientific Computing (PASC)<br><i>External Reviewer</i>   |
| 2022 | International European Conference on Parallel and Distributed Computing (Europar)<br><i>External Reviewer</i>   |
| 2021 | Design, Automation and Test in Europe Conference (DATE)<br><i>External Reviewer</i>   |

## Honors

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| 2015 | Outstanding Graduates of Southwest Jiaotong University<br><b>Southwest Jiaotong University</b> (China) |
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2014	National Scholarship <b>Southwest Jiaotong University</b> (China)
2013	Excellent Student Leader <b>Southwest Jiaotong University</b> (China)
2012	All-Round Excellence Award <b>Southwest Jiaotong University</b> (China)
2012	Award for Outstanding Spiritual and Ethical Conduct <b>Southwest Jiaotong University</b> (China)
2011 – 2014	Annual Outstanding Undergraduate Student Scholarship <b>Southwest Jiaotong University</b> (China)

## Languages

Native	Mandarin Chinese
Fluent	English
Intermediate	Swedish

## References

Main Ph.D. supervisor	Prof. Miquel Pericàs <b>Chalmers University of Technology (Sweden)</b> <a href="mailto:miquelp@chalmers.se">miquelp@chalmers.se</a>
Ph.D. co-supervisors	Dr. Madhavan Manivannan, Dr. Bhavishya Goel <b>Chalmers University of Technology (Sweden)</b> <a href="mailto:madhavan@chalmers.se">madhavan@chalmers.se</a> , <a href="mailto:goelb@chalmers.se">goelb@chalmers.se</a>
Main M.S. supervisor	Prof. Jianbin Fang <b>National University of Defense Technology (China)</b> <a href="mailto:j.fang@nudt.edu.cn">j.fang@nudt.edu.cn</a>