

## Rohan Yadav

Ph.D. Student in Computer Science, admitted Autumn 2020

### Publications

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#### PUBLICATIONS

- **Task-Based Tensor Computations on Modern GPUs** *PROCEEDINGS OF THE ACM ON PROGRAMMING LANGUAGES-PACMPL*  
Yadav, R., Garland, M., Aiken, A., Bauer, M.  
2025; 9 (PLDI)
- **Composing Distributed Computations Through Task and Kernel Fusion**  
Yadav, R., Sundram, S., Lee, W., Garland, M., Bauer, M., Aiken, A., Kjolstad, F., ACM  
ASSOC COMPUTING MACHINERY.2025: 182-197
- **Improving Parallel Program Performance with LLM Optimizers via Agent-System Interfaces**  
Wei, A., Nie, A., Teixeira, T. X., Yadav, R., Lee, W., Wang, K., Aiken, A.  
edited by Singh, A., Fazel, M., Hsu, D., Lacoste-Julien, S., Berkenkamp, F., Maharaj, T., Wagstaff, K., Zhu, J.  
JMLR-JOURNAL MACHINE LEARNING RESEARCH.2025: 66155-66177
- **KDRSolvers: Scalable, Flexible, Task-Oriented Krylov Solvers**  
Zhang, D., Yadav, R., Aiken, A., Kjolstad, F., Treichler, S., ACM  
ASSOC COMPUTING MACHINERY.2025: 1351-1365
- **Automatic Tracing in Task-Based Runtime Systems**  
Yadav, R., Bauer, M., Broman, D., Garland, M., Aiken, A., Kjolstad, F., ACM  
ASSOC COMPUTING MACHINERY.2025: 84-99
- **DISTAL: The Distributed Tensor Algebra Compiler**  
Yadav, R., Aiken, A., Kjolstad, F.  
edited by Jhala, R., Dillig  
ASSOC COMPUTING MACHINERY.2022: 286-300
- **SpDISTAL: Compiling Distributed Sparse Tensor Computations**  
Yadav, R., Aiken, A., Kjolstad, F., IEEE  
IEEE.2022
- **Compilation of Sparse Array Programming Models** *PROCEEDINGS OF THE ACM ON PROGRAMMING LANGUAGES-PACMPL*  
Henry, R., Hsu, O., Yadav, R., Chou, S., Olukotun, K., Amarasinghe, S., Kjolstad, F.  
2021; 5