411 Project

This project aims to do an ultra-lightweight introduction to research and make you aware of the recent trend in parallel programming both in academics and industry. You can choose from one of the following topics below:Read any HPC related paper and present (see notes on where to search)

- Implement an existing primitive like parallel BFS or anything under this umbrella and discuss what you have learned
- Find a new parallel algorithm for a problem that does not have a parallel solution

At the end of the project, you are supposed to give a small presentation on the topic, including what you have learned and write a 2-page report.

The topic selection deadline is 10/20/21. You can send the selected topic via email to me.

Notes:

- If you find it too difficult to select a topic, you can contact me and I will be happy to provide one.
- Each topic is limited to exactly one person. The person who sends me the topic first will get the priority.
- You can view the topic others have selected here (https://emailwsu-my.sharepoint.com/:x:/g/personal/a_sukumaranrajam_wsu_edu/EZmIIK6gYtZMihJH_x8C0UkBp8NLsjkK8eG3AUQIIUeIlw?e=BD76Xm).
- If you are a graduate student, you are **not** allowed to chose a topic related to your research
- **If you have any questions, feel free to contact me**

List of potential conferences to search for papers

- SC: ACM/IEEE The International Conference for High Performance Computing Networking, Storage, and Analysis

- HPDC: IEEE International Symposium on High-Performance Parallel Distributed Computing
- ICS: ACM International Conference on Supercomputing
- IPDPS: International Parallel and Distributed Processing Symposium
- HiPC: International Conference on High Performance Computing, Data and Analytics
- ICPP: International Conference on Parallel Processing
- ICDCS: International Conference on Distributed Computing Systems
- CLUSTER: IEEE International Conference on Cluster Computing
- CCGRID: IEEE/ACM Cluster Computing, Cloud and Grid Computing
- PPoPP: ACM Symposium on Principles and Practice of Parallel Programming
- SPAA: ACM Symposium on Parallelism in Algorithms and Architectures
- IISWC: IEEE International Symposium on Workload Characterization
- ISPASS: IEEE International Symposium on Performance Analysis of Systems and Software
- CGO: International Symposium on Code Generation and Optimization
- Euro-Par: European Conference on Parallel and Distributed Computing
- MLSys: Machine Learning and Systems
- TPDS: IEEE Transactions on Parallel and Distributed Systems
- TCC: IEEE Transactions on Cloud Computing
- TOPC: ACM Transactions on Parallel Computing
- JPDC: Journal of Parallel and Distributed Computing (Elsevier)
- ParCo: Parallel Computing (Elsevier)
- TACO: ACM Transactions on Architecture and Code Optimization