Jing Lan

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🎓 Education

The Chinese University of Hong Kong (CUHK), Hong Kong, China 2022 – Present

MPhil in Computer Science
Supervisor: Prof. James Cheng

Sun Yat-sen University (SYSU), Guangzhou, China 2018 – 2022

BEng in Computer Science
Supervisors: Prof. Nong Xiao & Prof. Dan Huang
GPA: 90(Overall) / 90.8(Major)

👥 Experience

Flavius: Distributed Graph OLAP Engine @ Husky Data Lab, CUHK 2022 – Present

Core Developer Advisor: Prof. James Cheng

Develop a distributed, in-memory graph OLAP engine that adopts a disaggregated architecture. The key motivation is to ensure high throughput for dominant small queries with the presence of a few heavy ones. My contributions are:

- A query planner supporting graph semantics (e.g., optional match, pattern filter, recursive join, etc) through a set of *Subquery* operators. Our system supports most queries from the LDBC Benchmark suite.
- A disaggregated architecture with a cache cluster doing graph data caching, operator pushdown, and distributed joins.
- (Ongoing) A push-pull hybrid query engine: heavy queries executed in batches prevents small ones from being blocked in executors. A scheduler sets the batch size for maximum resource utilization.

Student Cluster Competition (SCC) @ SYSU 2020 – 2022

member(2020-21), leader(2021-22) Advisor: Prof. Zhiguang Chen, Dan Huang

- Winner of a few system competitions co-located with world-famous HPC events (i.e., SC & ISC)
- Skill set: Cluster Management; Parallel computing (e.g., MPI, OpenMP) and system optimization

🎓 Publication

TBD

⚙ Skills

- Programming Languages: C++, Python
- Platform: Linux servers, supercomputers, cloud
- Software: Slurm, Spack, CMake, LaTeX, etc.
- Languages: English - Fluent (TOEFL 103), Mandarin - Native

♡ Honors and Awards

2nd Prize, Undergraduate Scholarship. top 10%	2019, 2021
Champion	IndySCC@SC'21, 2021
Honorable Mention	SCC@ISC'21, 2021
2nd Prize (3rd out of 65)	CAS/Sugon Priority Research Application, 2021

ℹ Miscellaneous

- The SYSU SCC Team: https://scc.sysu.tech
- Homepage: https://lan-jing.github.io/