YUE GONG

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Education

Southern University of Science and Technology, Shenzhen, China — Sep.2016 - Present
Bechelar student in Computer Science and Engineering (CSE), expected June 2020
GPA: 3.88/4.00 (2/145)

The University of California, Irvine, Irvine, USA — July.2019. - Sep.2019
Visiting Student in Information and Computer Sciences (ICS)
GPA: 4.00/4.00

Experience

University of California, Irvine, Irvine, America — July.2019 - Sep.2019
Research Internship in Information and Computer Science Department (ICS)

Southern University of Science and Technology, Shenzhen, China — Sep.2018 - Jan.2018
Teaching Assistant in C and C++ Programming

Research Project

Speed Up Query Execution by Pushdown In AsterixDB — July.2019 - Sep.2019
Individual Research Project Supervisor: Prof.Michael Carey

AsterixDB is a Big Data Management System. To avoid the expensive memory copy cost between operators (e.g. project, select, assign), we push execution logic down to the data-scan stage as much as possible for three patterns of queries.

- Explore three patterns of query on which pushdown can have a performance impact
- Integrate new rewriting rules into a large code-base and achieve at most 34.6% speed-up
- Design comprehensive benchmarks to test the performance

Efficient Cache Management for Replicated Web Search Engine — Sep.2018 - Present
Individual Research Project Supervisor: Prof.Bo Tang

Uniform caching scheme in most search engines simply caches the same content on all the servers which does not exploit the variations among queries.To tackle this limitation, we want to develop a new caching scheme which diversifies the cache contents in different servers by training past query log.

- Provide the theoretical inapproximability proof of diversified caching problem
- Implement a framework with a suite of techniques and heuristics for diversified caching
- Enhancing the cache admission process with semantic information of words.[in progress]

Standard Tests

TOFEL Test: 109 (30R, 28L, 24S, 27W) — Feb.2019
GRE General Test: 321 (153V, 168Q) — May.2018

Honors and Awards

1st Prize, Scholarship for Outstanding Student (5%) — Sep. 2017
2nd Prize, Scholarship for Outstanding Student — Sep. 2018
Scholarship for Outstanding Fresher — Sep. 2016
National Chemical Olympiad (National Second Prize) — Oct. 2015
National Mathematical Olympiad (National Third Prize) — Oct. 2015