

YUE GONG

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EDUCATION

- Southern University of Science and Technology**, Shenzhen, China Sep.2016 - Present
Bachelor in Computer Science and Engineering (CSE), expected June 2020
GPA: 3.88/4.00 Rank: 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
- The University of British Columbia**, Vancouver, CA July.2018. - Aug.2018
Visiting Student in Electrical and Computer Engineering (ECE)
GPA: 4.09/4.33

EXPERIENCE

- Research Internship**, University of California Irvine July.2019 - Sep.2019
Worked on the **query optimization** of AsterixDB project supervised by Prof. Michael Carey
- Research Assistant**, Southern University of Science and Technology Aug.2018 - Present
Led a research project focusing on the **cache management** for web search engines supervised by Prof. Bo Tang
- Technique Workshop**, Tencent collaborated with SUSTech Dec.2018 - Jan.2019
Worked on **clustering duplicate bug reports** by the stack trace information
- Teaching Assistant**, Southern University of Science and Technology Sep.2018 - Jan.2018
Assisted in teaching the course 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**
To avoid significant memory copy costs 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 complete pushdown can have a up to **34.6% speed-up**
 - **Design comprehensive benchmarks** to test the performance[poster] [technical report]
- Efficient Cache Management for Replicated Web Search Engine** Sep.2018 - Present
Individual Research Project Supervisor: **Prof. Bo Tang**
To tackle the limitation of traditional uniform caching, we propose 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]

NOTABLE COURSE PROJECT

Pintos - Enhance A Simple Operating System Framework

2019.03 – Present


Main developer  code [technical report]

Pintos is a simple operating system framework for the 80x86 architecture. We need to strengthen its support in kernel threads, loading and running user programs, and a file system.

- Implement the **priority scheduling** with priority donation and multilevel feedback queue scheduling.
- Implement fundamental **system calls**.
- Implement a **file system** with support to buffer cache, extensible files and subdirectories.

Influence Maximization

2018.11 – 2018.12

individual project  code [technical report]

Influence Maximization is the problem of finding a small subset of nodes in a social network that could maximize the spread of influence.

- **Exploit the parallelism** of the state of art algorithm and adapt it to multi-process version
- Got highest score in the performance contest in my class **Rank: 1/105**

PiliPili - An Image Processing App

2019.03 – 2019.05

Full stack developer  code [slides]

- PiliPili can apply artistic styles to photos or videos in real-time providing with 11 different styles as well as their combination.
- A simple community for users to upload and share their own creative work.

STANDARD TESTS

TOFEL Test: 109 (30R, 28L, 24S, 27W)

Feb.2019

GRE General Test: 329 (160V, 169Q, 3.5AW)

Oct.2019

HONORS AND AWARDS

1st Prize, Scholarship for Outstanding Student (5%)

Sep. 2017

2nd Prize, Scholarship for Outstanding Student

Sep. 2018

The Best Group, Tencent-SUSTech Technique Practice Project

Jan. 2019

Scholarship for Outstanding Fresher

Sep. 2016

National Chemical Olympiad (National Second Prize)

Oct. 2015

National Mathematical Olympiad (National Third Prize)

Oct. 2015