

## Education

- Sep,2019– Jun,2022 **M.E in Department of Computer Science and Engineering**, *Southern University of Science and Technology(SUSTech)*, Supervisor: Prof. Bo Tang(home page), GPA: 3.63/4.00.
- Sep,2015– Jun,2019 **B.E in Department of Computer Science and Engineering**, *Southern University of Science and Technology(SUSTech)*, Supervisor: Prof. Bo Tang(home page), GPA: 3.45/4.00.

## Research Interest

I am interested in simple but efficient algorithms as well as "weird" algorithms which are counter-intuitive at the first glimpse. Especially, I am willing to use geometric properties to design efficient algorithms with theoretical guarantees for solving real-world problems.

## Publications

**Bo Huang**, Victor Junqiu Wei, Raymond Chi-Wing Wong, and Bo Tang. Ear-oracle: On efficient indexing for distance queries between arbitrary points on terrain surface. In *Proceedings of the ACM International Conference on Management of Data (SIGMOD)*, 2023 (to appear, repository link).

## Research Experience

- Mar,2023– Present **Hong Kong University of Science and Technology**, *Research Assistant*, Advisor: Prof. Raymond Chi-Wing Wong (home page).  
We are currently working on efficient geodesic distance query processing.
- Aug,2022– Feb,2023 **Hong Kong Polytechnic University**, *Research Assistant*, Advisor: Dr. Victor Junqiu Wei (home page).  
Improve the indexing performance for geodesic distance queries on terrain surfaces.
- Jul,2020– Jun,2022 **Southern University of Science and Technology**, *Student*, Supervisor: Prof. Bo Tang(home page).  
**Research problem:** Build index for accelerating approximate geodesic distance queries between arbitrary surface points on terrain surfaces.  
**Main idea:** We first project the terrain surface on  $x-y$  plane and partition the projected surface into several grids. For distance queries where the query source and destination locate in the same grid, we adopt the Dijkstra's algorithm since the queries have space locality; For distant distance queries, we select the terrain vertices on the grid boundaries and connect them by a highway network according to geometric properties. This kind of queries could be accelerated by accessing this network since the size of the highway network is lightweight.
- Feb,2019– Aug,2019 **National University of Singapore**, *Research Assistant*, Supervisor: Prof. Xiaokui Xiao(home page).  
Implement BKSVD in C++ and collect a graph dataset based on twitter (users and their relationships) in python.

## Teaching Experience

- Feb,2018– Jun,2018 **Operating Systems**, Lecturer: Prof. Bo Tang@SUSTech.  
I designed lab assignments about the memory management strategies and a toy file system.
- Sep,2017– Jan,2018 **Data Structures and Algorithm Analysis**, Lecturer: Prof. Bo Tang@SUSTech.  
I designed over 70 algorithmic problems and prepared their corresponding test data.

## Awards

- 2015 **The second prize scholarship of the freshman**, *SUSTech*, Top 20%.
- 2017,2018 **The third prize scholarship of the excellent student**, *SUSTech*.
- 2017 **Bronze Medal**, *ACM-ICPC Asia Regional EC-Final*.
- 2018 **Gold Medal**, *CCPC Guangdong Province Contest*.
- 2018 **Silver Medal**, *ICPC China Invitational Contest*.
- 2018 **Silver Medal**, *CCPC Guilin Site*.