Hanyan Yin

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EDUCATION

Renmin University of China — Beijing, China
*M.Sc. in Artificial Intelligence; **GPA: 3.70/4.00*** — *Sep 2023 – Present*
Advisor: Zhewei Wei and Xiao Zhang

Beijing University of Posts and Telecommunications — Beijing, China
*B.E. in Computer Science and Technology; **GPA: 3.79/4.00*** — *Sep 2019 – Jun 2023*
Pilot Class of School of Computer Science (National Pilot Software Engineering School)

PUBLICATIONS

[1] **Optimal Matrix Sketching over Sliding Windows** — *Aug 2024*
Hanyan Yin, Dongxie Wen, Jiajun Li, Zhewei Wei*, Xiao Zhang, Zengfeng Huang, and Feifei Li
VLDB 2024, Proceedings of the VLDB Endowment, Volume 17, Issue 9
* Best Paper Nomination

EXPERIENCE

Momenta — Beijing, China
R&D Intern — *Jan 2022 – Present*

- Contributed to the development of a map tile graphics encoder, compiling text map data into binary three-dimension graphic format.
- Designed and implemented a multi-threaded incremental map tile compiler in C++ and Python to efficiently handle frequent updates and large-scale datasets.
- Developed data compression and hierarchical optimization techniques (e.g., Ramer–Douglas–Peucker algorithm) to minimize backend storage requirements and enhance WebGL frontend rendering performance.

AWARDS & ACHIEVEMENTS

First-Class Scholarship for Excellence in Graduate Studies. Renmin University of China. *Dec 2024*
Best Paper Nomination. 50th International Conference on Very Large Databases. *Aug 2024*
Outstanding Graduate Student of Beijing. Beijing Municipal Education Commission. *Jul 2023*
Outstanding Graduate of Beijing University of Posts and Telecommunications. *Jun 2023*
Student Member of the China Computer Federation (CCF). *Jun 2021 – Present*
CCF CSP Certificate: Achieved a score of 370, ranked in the top 1.51% overall. *Sep 2021*
Gold Medal, 14th BUPT Programming Contest (CodeMao Cup). *Nov 2020*

PROJECTS

Dump-Snapshot Frequent Directions (DS-FD) | *GitHub*

- A Python project that implements the matrix sketching algorithm for a sliding window model, achieving theoretically optimal space complexity.