

CONG DING

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EDUCATION

Peking University

B.S. in Computer Science

B.A. in Chinese Literature (Dual Degree)

GPA: 3.71/4.00 (WES: 3.82/4.00)

Sept. 2016 - Jul. 2021 (Expected)

Beijing, China

PUBLICATIONS

- **Cong Ding**, Dixin Tang, Xi Liang, Aaron J. Elmore, Sanjay Krishnan. CIAO: An Optimization Framework for Client-Assisted Data Loading. *ICDE 2021 (Short Paper)*.
- Zechao Shang, Xi Liang, Dixin Tang, **Cong Ding**, Aaron J. Elmore, Sanjay Krishnan, Michael J. Franklin. CrocodileDB: Efficient Database Execution through Intelligent Deferment. *CIDR 2020*.

RESEARCH EXPERIENCE

DASLab, Harvard SEAS

Remote Research Intern, advised by Prof. Stratos Idreos

Jul. 2020 - Present

Beijing, China

- Explored the performance space of key-value storage engines (e.g., RocksDB) to develop tuning strategies under various workloads.
- Designed a workflow of factorial design and ANOVA to detect the relative significance and strength of correlations between different knobs in RocksDB.

ChiData Group, The University of Chicago

Research Intern, advised by Prof. Aaron Elmore and Prof. Sanjay Krishnan

Jul. 2019 - Jun. 2020

Chicago & Beijing

- Designed and implemented *CIAO*, a tunable system to make various clients cooperate with the server to enable efficient partial loading and data skipping for a set of standing queries.
- Proposed an efficient algorithm to select near-optimal predicate set to push down for client-side evaluation within a given budget.
- Implemented the system and evaluated on three datasets, accelerating data loading by up to 21x and query execution by up to 23x within a budget of 1.0 microseconds latency per record on clients.

Data Management Lab, Peking University

Research Intern, advised by Prof. Lei Zou

Mar. 2019 - Jun. 2019

Beijing, China

- Optimized the index structure of a graph-based RDF data management system *gStore* by collecting requests and trying to read the disk sequentially to reduce I/O cost.
- Developed *StringIndex* class to optimize the process of getting string by index.

SELECTED AWARDS

- Merit Student (Peking University, top 10%)
- Yangxin Lotus Virtue Awards (Peking University, top 10%)
- Peking University Tan Siu Lin Overseas Research Grants (\$4500)

SKILLS

Languages

Chinese (native), English (fluent, TOEFL: 107/120)

Programming

C/C++, Shell(Bash), Python, Spark (Scala), L^AT_EX