Yueting Chen

ychen24@seattleu.edu   (+1) 206-296-5373

Research Interests

I am passionate about working on data management problems. I have a broad range of interests in video analytics, databases, data management, and distributed data processing. I'm also interested in the challenges and opportunities posed by recent advances in ML and AI in data management tasks.

Academic Experience

- **Assistant Professor @ Seattle University** *2024 Sep. - Present*

- **Post-doctoral Visitor @ York University** *2023 Sep. - 2024 Sep.*

- **Course Director @ LA&PS, York University** *2023 Sep. - 2024 Apr.*

Education

- **York University, Canada** *2017 Sep. – 2023 Aug.*

  Ph.D., Computer Science
  Supervisor: Prof. Xiaohui Yu

- **Shandong University, China** *2014 Sep. – 2017 Jun.*

  M.S.E, Computer Science and Technology
  School of Computer Science and Technology

- **Shandong University, China** *2010 Sep. – 2014 Jun.*

  B.S., Software Engineering
  School of Software Engineering

Publications

1. Kaiwen Chen, **Yueting Chen**, Nick Koudas, Xiaohui Yu. *Reliable Text-to-SQL with Adaptive Abstention* Proceedings of the ACM on Management of Data. 3(1), pp.1-30. 2025.

2. Daren Chao, **Yueting Chen**, Nick Koudas, Xiaohui Yu. *Optimizing Video Queries with Declarative Clues.* In Proceedings of the VLDB Endowment, 17(11), pp.3256-3268. 2024.

3. Ziqiang Yu, Xiaohui Yu, Nick Koudas, **Yueting Chen**, and Yang Liu. *A Distributed Solution for Efficient K Shortest Paths Computation Over Dynamic Road Networks.* In IEEE Transactions on Knowledge and Data Engineering. 2024 Jan 1.

4. Ziqiang Yu, Xiaohui Yu, Tao Zhou, **Yueting Chen**, Yang Liu, and Bohan Li. *ODIN: Object Density Aware Index for C kNN Queries over Moving Objects on Road Networks.* In IEEE Transactions on Knowledge and Data Engineering. 2023 Dec 22.

5. Daren Chao, **Yueting Chen**, Nick Koudas, Xiaohui Yu. *Track merging for effective video query processing.* In 2023 IEEE 39th International Conference on Data Engineering (ICDE), pp. 164-176. IEEE, 2023.

6. **Yueting Chen**, Nick Koudas, Xiaohui Yu, Ziqiang Yu. *Spatial and temporal constrained ranked retrieval over videos.* Proceedings of the VLDB Endowment 15, no. 11 (2022): 3226-3239.

7. **Yueting Chen**, Xiaohui Yu, Nick Koudas. *Ranked Window Query Retrieval over Video Repositories.* In 2022 IEEE 38th International Conference on Data Engineering (ICDE), pp. 2776-2791. IEEE, 2022.

8. **Yueting Chen**, Xiaohui Yu, Nick Koudas, Ziqiang Yu. *Evaluating temporal queries over video feeds.* In Proceedings of the 2021 International Conference on Management of Data, pp. 287-299. 2021.

9. **_Yueting Chen_**, Xiaohui Yu, and Nick Koudas. _TQVS: Temporal queries over video streams in action._ In Proceedings of the 2020 ACM SIGMOD International Conference on Management of Data, pp. 2737-2740. 2020.

10. Ziqiang Yu, Xiaohui Yu, Nick Koudas, Yang Liu, Yifan Li, **_Yueting Chen_**, Dingyu Yang. _Distributed processing of k shortest path queries over dynamic road networks._ In Proceedings of the 2020 ACM SIGMOD International Conference on Management of Data, pp. 665-679. 2020.

PATENT

CN107580023B (China Patent): A stream processing job scheduling method and system   _2017_

RESEARCH EXPERIENCE

- **Research Intern**   _2021_
  IBM Center for Advanced Studies (CAS)
    - **Mentor**: Calisto Zuzarte
    - _Research Topic: Deep reinforcement learning for data partitioning._

- **Research Assistant**   _2021-2023_
  IBM Center for Advanced Studies (CAS)
    - **Mentor**: Calisto Zuzarte
    - _Research Topic: Machine learning for the data partitioning problem._

- **Research Assistant**   _2017-2023_
  York University
    - **Supervisor**: Prof. Xiaohui Yu
    - _Research Topic: Evaluating temporal queries over videos._
    - _Additional Contribution: Contributor of Apache Flink Open-Source Project (2018)_

TALKS AND PRESENTATIONS

- **Talk at CASCON 2023**   _Sep. 2023_
  Machine Learning Based Modern Data Systems.

- **Presentation at ICDE 2023**   _Apr. 2023_
  Track merging for effective video query processing.

- **ML4DB Workshop at CASCON 2022**   _Nov. 2022_
  ML4DM: The second workshop on the emerging applications of machine learning in modern data management.

- **Presentation at VLDB 2022**   _Sep. 2022_
  Spatial and temporal constrained ranked retrieval over videos.

- **Presentation at ICDE 2022**   _May. 2022_
  Ranked Window Query Retrieval over Video Repositories.

- **Presentation at SIGMOD 2021**   _Jun. 2021_
  Evaluating temporal queries over video feeds.

- **Demo session at SIGMOD 2020**   _Jun. 2020_
  TQVS - Temporal queries over video streams in action.

Technical Skills

- Proficient in common programming languages, including, Python, Java, Javascript, Bash, etc.
- Data analytics skills with common techniques and libraries including SQL, pandas, Spark, etc.
- Machine learning skills with common libraries including PyTorch, PyTorch Geometric, Keras, etc.
- Manage and work with clusters with common components including Hadoop, Spark, Kafka, etc.
- Full stack development, able to deliver end-to-end software product.

Teaching

Seattle University (2024-now)

- CPSC 2430 - Data Structures *2025 Spring Quarter*
- CPSC 5200 - SW Architecture and Design *2025 Spring Quarter*
- CPSC 5200 - SW Architecture and Design *2025 Winter Quarter*
- CPSC 5021 - Database Systems *2024 Fall Quarter*

York University (2023-2024)

- ITEC 4010 - System Analysis and Design II *2024 Winter*
- ITEC 4010 - System Analysis and Design II *2023 Fall*
- ITEC 3505 - Project Management *2023 Winter*

Teaching Assistant

- EECS 4315 - Mission-Critical Systems *2023 Winter*
- EECS 3342 - System Specification and Refinement *2020 Winter - 2023 Winter (4 terms)*
- EECS 2030 - Advanced Object Oriented Programming *2021 Fall, 2022 Fall (2 terms)*
- EECS 3311 - Software Design *2018 Winter - 2021 Winter (7 terms)*
- EECS 4312 - Software Engineering Requirements *2018 Fall, 2019 Fall (2 terms)*
- EECS 3221 - Operating System Fundamentals *2019 Summer*
- EECS 1011 - Computational Thinking *2017 Fall*
- MATH 1019 - Discrete Math for Computer Science *2017 Fall*

Mentoring

- Ming Kan Leung (NSERC USRA Project) *Summer 2022*
- Sayyed Raza (DARE Project) *Summer 2021*
- Chin Uzoka (DARE Project) *Summer 2020*

Services

Chair

- KDD 2025 Web Chair *2025*

Reviewer Service

- ACM International Conference on Information and Knowledge Management (CIKM) *2024*

External Reviewer

- International Conference on Management of Data (SIGMOD) *2023*
- International Conference on Very Large Data Bases (VLDB) *2023*
- International Conference on Data Engineering (ICDE) *2023*

Awards and Prizes

- Recognized for positive change in accessibility, York University *2023*
- The third class scholarship, Shandong University *2015, 2016*
- The second class scholarship, Shandong University *2012, 2013*
- Third prize in Chinese University Students Service Outsourcing Innovation and Entrepreneurship Competition *2013*
- Outstanding worker of Campus Network Culture Center *2013*
- First prize of the north area in NetEase Innovation Competition *2013*
- First prize of the tenth Qi Lu Software Competition *2012*