

GRACE FAN

EDUCATION

- SEPT. 2020 - Present **Northeastern University**
PhD Candidate in COMPUTER SCIENCE
PhD Advisor: Professor Renée J. Miller
Focus Areas: Data Discovery, Unionable Table Search
- MAY 2020 **Brown University**
B.S. in COMPUTER SCIENCE
Advisor: Professor Ugur Cetintemel
- JUNE 2016 **Agnes Irwin School, PA**
High School Graduation

PUBLICATIONS

- **Grace Fan**, Jin Wang, Yuliang Li, Dan Zhang, and Renée J. Miller. “Semantics-aware Dataset Discovery from Data Lakes with Contextualized Column-based Representation Learning.” VLDB 2023 [\[Link\]](#)
- Aamod Khatiwada, **Grace Fan**, Roei Shraga, Zixuan Chen, Wolfgang Gatterbauer, Renée J. Miller, Mirek Riedewald: SANTOS: Relationship-based Semantic Table Union Search. SIGMOD 2023 [\[Link\]](#)
- **Grace Fan**, Wenfei Fan, Yuanhao Li, Ping Lu, Chao Tian, Jingren Zhou: Extending Graph Patterns with Conditions. SIGMOD Conference 2020: 715-729 [\[Link\]](#)
- Amir Ilkhechi, Andrew Crotty, Alex Galakatos, Yicong Mao, **Grace Fan**, Xiran Shi, Ugur Çetintemel: Deep-Squeeze: Deep Semantic Compression for Tabular Data. SIGMOD Conference 2020: 1733-1746 [\[Link\]](#)
- Stephen Ph. Alexander, Eamonn Kelly, Neil Marrion, John A. Peters, Helen E. Benson, Elena Faccenda, Adam J. Pawson, Joanna L. Sharman, Christopher Southan, Peter Buneman, William A. Catterall, John A. Cidlowski, Anthony P. Davenport, Dorian Fabbro, **Grace Fan**, John C. McGrath, Michael Spedding, Jamie A. Davies, “The Concise Guide to Pharmacology 2015/2016.” by The British Journal of Pharmacology, Oct 2015 *PMID: 26650438*
- **Grace Fan**, Wenfei Fan, Floris Geerts: “Detecting Errors in Numeric Attributes”. WAIM 2014: 125-137. [\[Link\]](#)

INTERNSHIPS

- 2023 Research Intern
Microsoft Research, Redmond, WA
Studied the problem of dataset search and experimented with enterprise data
- 2022 Research Intern
Megagon Labs, Mountain View, CA
Helped develop and experiment with different research methods for the problem of finding unionable tables, later submitting the paper to VLDB 2023
- 2018 Systems Analyst Intern
Amazon Web Services, Herndon, VA
Helped customers troubleshoot Linux and Networking problems
Assisted customers with internal issues in AWS's services
Created a website to help the team handle customer cases more efficiently.
- 2017 Research Intern
Huawei, Beijing, China
Dealt with database systems and query evaluation
Researched various diagnostic approaches, specifically with the trace facility
- 2015 Research Intern
University of Edinburgh, Edinburgh, Scotland
Helped program a new version of “The Concise Guide to Pharmacology”
Compiled biomedical data and sorted them by various similarities.
Used Python to convert it into HTML that produced a PDF resource book

TEACHING EXPERIENCE

- 2021 Computer Science Department at Northeastern University
Teaching Assistant for Large-Scale Parallel Data Processing
Taught two lectures, held office hours, and led students in practice-problem sessions
- 2018 Computer Science Department at Brown University
Teaching Assistant for Computer Systems
Helped students understand concepts, plan out their code structure,
and debug errors and segmentation faults.

COMPUTER LANGUAGES

PYTHON, JAVA, SQL, C, C++, GO, SCALA, ~~TEX~~_EX, REACT, HTML, JAVASCRIPT

INTERESTS AND ACTIVITIES

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| Northeastern University | Member of PhD Women group |
| Brown University | Mentor for the Women in Computer Science;
Member of the Women in Science and Engineering |
| Other Academic Interests | Cognitive Science and Psychology |
| Other Interests | Writing Poetry; Photography & Traveling |