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## Education

- Sep 2013–Aug 2018 **PhD Computer Science**, *University of Waterloo*.  
○ Research focused on high-level query optimization for non-relational data systems
- Sep 2009–Jan 2011 **Master of Science**, *University of Toronto*.  
○ Research focused on database scalability through the use of virtual machine cloning  
○ Projects involved modifications to the Linux kernel, the Xen hypervisor, and MySQL
- Sep 2005–Jun 2009 **Bachelor of Science (Honours)**, *UOIT*.  
○ Degree in Computing Science, minor in Mathematics  
○ Received President’s Leadership Award for extracurricular involvement

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## Work History

- Aug 2018–Present **Assistant Professor**, *Rochester Institute of Technology*.  
○ Tenure track member of the Data Science cluster
- Feb 2011–Jul 2013 **Senior Web Developer, Associate Product Manager**, *Bunch*.  
○ Architected and developed both frontend, backend, mobile applications for the product  
○ Managed backend services from deployment through to thousands of users per hour  
○ Developed distributed system for clustering and analysis of large volumes of user data

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## Grants

- 2019–2020 **Provost’s Learning Innovation Grant**, *Rochester Institute of Technology*, \$5,000.  
2019 **EVA and Device Management Database**, *Harris Corporation*, \$20,000.  
2018–2021 **Seed Funding Award**, *Rochester Institute of Technology*, \$5,000.

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## Awards

- 2018 **Doctoral Thesis Completion Award**, *University of Waterloo*.  
2016–2017 **David R. Cheriton Graduate Scholarship**, *University of Waterloo*.  
2016–2017 **Queen Elizabeth II Graduate Scholarship in Science and Technology**.  
2011 **Best Student Paper**, *SYSTOR 2011*.  
2009–2010 **Canada Graduate Scholarship**, *Natural Sciences and Engineering Research Council*.

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## Invited Talks

- December 2019 **Fast Nested Dependency Mining**, *University of Rochester*.  
October 2017 **Schema Design and Management for NoSQL Databases**, *Ontario Tech University*.

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## Publications

- 2022 **How Inclusive are We? An Analysis of Gender Diversity in Database Venues**, *SIGMOD Record*.  
A. Bonifati, M. Mior, F. Naumann
- 2021 **An integrated approach for column-oriented database application evolution using conceptual models**, *2nd Workshop on Conceptual Modeling for NoSQL Data Stores*.  
P. Suárez-Otero, M. Mior, M. Suárez-Cabal, and J. Tuya
- 2020 **Maintaining NoSQL Database Quality During Conceptual Model Evolution**, *International Workshop to Improve Big Data Science Project Team Processes*.  
P. Suárez-Otero, M. Mior, M. Suárez-Cabal, and J. Tuya

- 2020 **Semantic Data Understanding with Character Level Learning**, *Proc. of IRI 2020*.  
M. Mior, K. Pu
- 2020 **ReSpark: Automatic Caching for Iterative Applications in Apache Spark**, *IEEE BigData*.  
M. Mior, K. Salem
- 2018 **Renormalization of NoSQL Database Schemas**, *Proc. of ER 2018*.  
M. Mior, K. Salem
- 2018 **Apache Calcite: A Foundational Framework for Optimized Query Processing Over Heterogeneous Data Sources**, *Proc. of SIGMOD 2018*.  
E. Begoli, J. Camacho-Rodríguez, J. Hyde, M. Mior, D. Lemire
- 2017 **Netstore: leveraging network optimizations to improve distributed transaction processing performance**, *Proc. ACTIVE@Middleware 2017*.  
X. Cui, M. Mior, B. Wong, K. Daudjee
- 2017 **NoSE: Schema Design for NoSQL Applications**, *TKDE 2017*.  
M. Mior, K. Salem, A. Aboulnaga, R. Liu
- 2016 **NoSE: Schema Design for NoSQL Applications**, *Proc. of ICDE 2016*.  
M. Mior, K. Salem, A. Aboulnaga, R. Liu
- 2014 **Automated schema design for NoSQL Databases**, *Proc. of the 2014 SIGMOD PhD symposium*.  
M. Mior
- 2011 **FlurryDB: a dynamically scalable relational database with virtual machine cloning**, *Proc. of the 4th Annual International Conference on Systems and Storage*.  
M. Mior, E. de Lara

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## Teaching

- Sep 2018–Present **Instructor**, *Rochester Institute of Technology*.  
Teaching database courses for graduate and undergraduate computer science majors.
- Jan–May 2018 **Sessional Instructor**, *University of Waterloo*.  
Taught a section of introductory programming for undergraduate students.

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## Service

- 2022–2023 **Web Committee Chair**, *Rochester Institute of Technology*, Computer Science Department.  
Currently assisting with the maintenance of our department website.
- 2021 **Program Committee Member**, *ICDE 2022*.
- 2021 **Program Committee Member**, *EDBT 2022*.
- 2020–2022 **Program Committee Member**, *SIGMOD 2021–2023*.
- 2019–2020 **Program Committee Member**, *CCGrid 2020*.
- 2019–2019 **Curriculum Committee Member**, *Rochester Institute of Technology*, Department of Computing and Information Sciences Ph.D..  
Assisting with organizing the Research Potential Assessment (RPA) for new Ph.D. students as well as overall curricular requirements.
- 2018–2020 **Web Committee Member**, *Rochester Institute of Technology*, Computer Science Department.
- 2018–2020 **Reviewer**, *Transactions on Knowledge and Data Engineering*.
- 2017–2018 **VP Apache Calcite**, *Apache Software Foundation*.  
Apache Calcite is a modular query optimizer used by several commercial and industrial database engines. After serving as a committer and member of the Project Management Committee, I was voted as the project chair for 2018.