

EDUCATION

University of Waterloo Waterloo, Ontario, Canada
Doctor of Philosophy (Ph.D.) in Computer Science Sep. 2017 – Aug. 2023
Master of Mathematics (M.Math) in Computer Science, Fast-tracked to Ph.D. Sep. 2016 – Aug. 2017
Member of DSG (Data Systems Group).
Supervisor: Semih Salihoglu

Concordia University Montréal, Québec, Canada
Bachelor of Engineering (B.Eng) in Computer Engineering, with Distinction Sep. 2012 – May 2016

PUBLICATIONS GOOGLE SCHOLAR

- **Optimizing Subgraph Queries by Combining Binary and Worst-case Optimal Joins.**
A. Mhedhbi, S. Salihoglu. PVLDB 12(11), Aug. 2019.
- **The Ubiquity of Large Graphs and Surprising Challenges of Graph Processing: Extended Survey.**
S. Sahu, A. Mhedhbi, S. Salihoglu, J. Lin, MT. Özsu. VLDBJ, Jun. 2019.
- **The Ubiquity of Large Graphs and Surprising Challenges of Graph Processing (Best Paper Award).**
S. Sahu, A. Mhedhbi, S. Salihoglu, J. Lin, MT. Özsu. PVLDB 11(4), Dec. 2017.
- **Graphflow, An Active Graph Database.**
C. Kankanamge, S. Sahu, A. Mhedhbi, J. Chen, and S. Salihoglu. SIGMOD (Demonstration Track), May 2017.

EXPERIENCE

University of Waterloo Waterloo, Ontario, Canada
Research Assistant (Ph.D. Student) Sep. 2016 - Present

- Researching query optimization and processing techniques for subgraph queries.
- Development of auxiliary data structures to evaluate graph database queries efficiently.
- Contributing to building a next-generation graph database system called Graphflow.

University of Waterloo Waterloo, Ontario, Canada
Teaching Assistant (F=Fall, W=Winter, S=Spring) Sep. 2016 - Present

- CS 338 - Computer Applications in Business: Databases. S17, F17, W18, S18 & F19.
- CS 330 - Management Information Systems. W19 & S19.
- CS 348 - Introduction to Database Management. F18.
- CS 115 - Introduction to Computer Science 1. F16 & W17.

Société Générale SGCIB Montréal, Québec, Canada
Technology Analyst Intern May 2016 - Aug. 2016

- Contributed to changing a monolithic web based risk monitoring app to a service oriented architecture.
- Helped reduce the length of the release cycle from 6 to 4 weeks.

Ericsson R&D Montréal, Québec, Canada
Software Engineering Intern Sep. 2015 - Mar. 2016

- Developed a back-end service to virtualize physical IP Multimedia Subsystem (IMS) nodes.
- Prepared a fully functional demo for World Mobile Congress 2016.

InterDigital Communications Montréal, Québec, Canada
Software Developer Intern Jan. 2015 - Mar. 2015

- Revamped the UX for a more consistence experience in a smart network access manager mobile app.
- Prepared a technical demo to showcase the mobile application's features in a congested network.

Thales Group R&D

Research Intern (part-time)

Montréal, Québec, Canada

Nov. 2013 - Nov. 2014

- Conducted research in Digital Signal Processing advised by professors William Lynch & Glenn Cowan.
- Designed digital filters and amplitude detection algorithms and compared their latency and accuracy.

Immersion Corporation

Software Engineering Intern

Montréal, Québec, Canada

Sep. 2013 - Dec. 2013, May 2014 - Aug. 2014

- Designed haptic embedded mobile APIs in C and Java targeting OEMs and game developers.
- Integrated the TouchSense product in the framework code of Android (AOSP) KitKat release.
- Added haptic effects to native Android apps for demo purposes e.g. Camera.

AWARDS

- Microsoft Research Ph.D. Fellowship, 2020-2022.
- Facebook Ph.D. Fellowship (Declined), 2020-2022.
- Cheriton Symposium Poster Presentation - 1st Place, University of Waterloo, 2018.
- David R. Cheriton Scholarship, University of Waterloo, 2017-2018.
- SIGMOD 2017 Travel Award, SIGMOD, 2017.
- Graduate Entrance Scholarship, University of Waterloo, 2016-2017.
- Senior Engineering Design Project Award, Concordia University, 2015-2016.
- Junior Engineering Design Project Award, Concordia University, 2014-2015.
- Dean's List, Engineering & Computer Science, Concordia University, 2012-2014.

SKILLS

Programming: Java, Python, Javascript, SQL, C, C++, Shell Scripting.

Tools: Git, Numpy, Pandas, Scikit-learn, PyTorch.

Languages: English, French, Arabic.