

EDUCATION

University of Waterloo

Doctor of Philosophy (Ph.D.) in Computer Science

Master of Mathematics (M.Math) in Computer Science, Fast-tracked to Ph.D.

Supervisor: Semih Salihoglu

Waterloo, Ontario, Canada

Sep 2017 – Aug 2023

Sep 2016 – Aug 2017

Concordia University

Bachelor of Engineering (B.Eng) in Computer Engineering, with Distinction

Montréal, Québec, Canada

Sep 2012 – May 2016

SELECTED EXPERIENCE

University of Waterloo

Research and Teaching Assistant

Waterloo, Ontario, Canada

Sep 2016 - Present

- **Research - Data Systems:** Building fast and efficient graph database systems and their applications.
- **Teaching Assistanships:** Computer Applications in Business: Databases (CS338), Introduction to CS 1 (CS115).

Société Générale SGCIB

Technology Analyst Intern

Montréal, Québec, Canada

May 2016 - Aug. 2016

- Contributed to changing a monolithic web based risk monitoring app to a Service Oriented one.
- Helped reduce the length of the release cycle from 6 to 4 weeks.

Ericsson R&D

Software Engineering Intern

Montréal, Québec, Canada

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

Software Developer Intern

Montréal, Québec, Canada

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

Montréal, Québec, Canada

Nov. 2013 - Nov. 2014

- Conducted research in aerospace DSP 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 targetting 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.

SELECTED PUBLICATIONS

Graphflow, An active graph database: C. Kankanamge, S. Sahu, **A. Mhedhbi**, J. Chen, and S. Salihoglu. Proc. ACM SIGMOD International Conference on Management of Data (Demonstration Track), May 2017.

PROJECTS

• Graphflow *graphflow.io*

- Leading the development of a new prototype graph database licensed under Apache 2.0.
- Developing an optimizer and auxiliary data structures to evaluate queries efficiently.
- Implemented backed stores for vertex and edge properties, notifications of triggers, and filter queries.
- Supervising undergraduate research assistants contributing to the project.

PROGRAMMING SKILLS

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

Languages: English, French, Arabic.