# Marshall Asch

Masters Student

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## ➕ Summary

I am a Masters student at the University of Guelph, working towards my Masters of Computer Science. My research interests are in data storage in mobile ad hoc networks. I am currently working on a project to help close the digital divide in northern Canada and to help monitor the environment and health of individuals in an Inuit community in Rigolet, Labrador.

## ➕ Employment

**Left**                                                                                   May 2019 to Current
*University of Guelph Mitacs Intern*
Maple Ridge, BC
Conducting research on Mesh Networks and data storage

**University of Guelph**                                                        Jan. 2019 to Apr. 2019
*Research Assistant*
Guelph, On
Led development, integration, and testing of the web API for the eNuk
environmental and health monitoring application
· Led weekly meetings to coordinate software development
· Collaborated with external development team who was
consuming our API

**University of Guelph**                                                        Jan. 2019 to Apr. 2019
*Undergraduate Teaching Assistant*
Guelph, on
Teaching assistant

**Left**                                                                                   May 2018 to Aug. 2018
*RightMesh App Developer*
– Developed Android applications using the RightMesh mesh networking platform.
– Provided weekly progress updates to the project stake holders.
– Worked with a small team.

**Lakeridge Health**                                                            July 2017 to Aug. 2017
*IT Student*
Oshawa, ON
– Designed and built internal web tools for auditing and incident reporting.
– Assisted with the configuration and deployment of an out of band network to monitor the network around the hospital.
– Performed the migration of Windows SCCM and SQL servers in an enterprise environment.

**ActivNtel**                                                                        Apr. 2017 to June 2018
*Full Stack Developer*
Guelph, On
– Worked as the lead android developer designing and building an application for the Canadian National Archery team to perform real time data recording and analysis.
– Developed application layer network protocol to communicate with a server.
– Cooperated with different departments to design and build different components for the app (i.e. hardware engineering to design communication protocols)

## ➕ Awards

University of Guelph · Dr. James Linders Scholarship                                 Nov. 2018
A  scholarship for having the highest average in the core 3rd year Computer Science courses, in the Computer Science Major.

## ➕ Volunteering

Society of Computing and Information Science                              Sept. 2018 to Current
System Administrator
Guelph, ON
– Attend weekly meetings.
– In charge of redesigning and rebuilding the website and managing a team of other students.
– Responsible for maintaining our computer and email systems.

University of Guelph Climbing Club                                          Jan. 2016 to Feb. 2017
Climbing Gym Monitor
Guelph, On
– Worked to set routes and ensure that the everyone using the gym was being safe and following the proper safety rules.

## ➕ Education

**University of Guelph**                    May 2019 to Current
Masters Computer Science 2021

**University of Guelph**                    Sept. 2015 to Apr. 2019
Bachelor of Computing, Honours 2019
Maintained Dean's Honours List every semester
Received the University of Guelph Entrance Scholarship for obtaining a minimum average of 85% at a registered Ontario Secondary School.

## ➕ Skills

**PROGRAMMING LANGUAGES:** Node.js, BASH, Android, Java, git, Javascript, C, mysql, HTML, PHP

## ➕ Projects

**eNuk**                                              May 2018 to Current
A community lead eco-health monitoring application for an Inuit community in Rigolet, Labrador using RightMesh as a method to try to help bridge the gap in the digital divide where there is very little infrastructure in place for digital communication in the community.

**CIS3750 Community Engaged Scholarship**        2017 to 2017
A web API that was build for a software design course with to address a social challenge in our community. It is a Node.js backend with a MySQL database.

**Continuous Integration Server**              2017 to 2017
A configurable Node.js server that will receive GitHub or Gitlab webhooks to automatically update and restart a running web server without having to do it manually.

**Solitaire**                                      2015 to 2015
This is a program that I wrote in high school as a single player solitaire game. It features scoring, customizable card backs, high scores and different user account profiles. It is written by hand in Java and uses XML to store the data.

**Dragon Collar**                                  2017 to 2017
A wireless Bluetooth dog collar that was developed as the ECHacks 2017 project. It utilizes an Arduino 101 board and an Android mobile application.