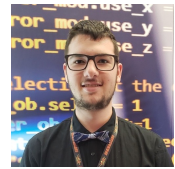


# Marshall Asch

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I am currently a Masters Student and Teaching Assistant at the University of Guelph studying Mobile ad hoc Networks. I have a passion for command-line tools, networking and anything that runs on a \*nix server. Most of my work has been on lower level cli tools and backend systems, but I do venture out into user land with web pages and full stack mobile apps.

## Education

2019 – present    📌 **M.Sc. Computer Science, University of Guelph, Canada** in Mesh Networking.

2015 – 2019    📌 **B.Comp. (Hons) Computer Science, University of Guelph, Canada.**  
*Degree with Distinction* Recognition for Outstanding Academic Performance.

## Open Source Projects

2020 - Present    📌 **liquidctl maintainer** 🔄 Active Maintainer on the python liquid cooler controller CLI application

2021 - Present    📌 **Botomir maintainer** 🔄 Active Maintainer on the nodeJS Discord Bot application

## Employment History

01/2021 – Present    📌 **Devops / Software Developer**, Value Connect, Guelph, ON.  
📌 **Graduate Teaching Assistant (Compilers)**, University of Guelph, ON.

09/2020 – 12/2020    📌 **Graduate Teaching Assistant (Cloud Computing)**, University of Guelph, ON.

01/2020 – 04/2020    📌 **Graduate Teaching Assistant (Operating Systems)**, University of Guelph, ON.

09/2019 – 08/2020    📌 **Left Mitacs Accelerate Intern**, University of Guelph, ON.

09/2019 – 12/2019    📌 **Graduate Teaching Assistant (Microcomputers)**, University of Guelph, ON.

05/2019 – 08/2019    📌 **University of Guelph Mitacs Accelerate Intern**, Left, Maple Ridge, BC.

01/2019 – 04/2019    📌 **Lead Developer and Undergraduate Research Assistant**, Working on the eNuk project, University of Guelph, ON.  
📌 **Undergraduate Teaching Assistant (Introduction to Computer Applications)**, University of Guelph, ON.

05/2018 – 08/2018    📌 **Mobile App Developer**, Left, Maple Ridge, BC.

05/2017 – 08/2017    📌 **IT Student**, Lakeridge Health, Oshawa, ON.

06/2016 – 08/2016    📌 **High Ropes Instructor**, Camp New Moon, ON

06/2015 – 08/2015    📌 **High Ropes Instructor**, Camp New Moon, ON

06/2014 – 08/2014    📌 **High Ropes Instructor**, Camp New Moon, ON

## Volunteer and Extra-Curricular Experience

### Volunteering

10/2019    📌 **Ontario University Fair**, Represented the University of Guelph, Toronto, ON.

09/2019 – 04/2020    📌 **Guelph Coding Community**, Student club executive, Guelph, ON.

09/2019 – 12/2019    📌 **Climbing Gym Monitor**, University of Guelph, ON.

## Volunteer and Extra-Curricular Experience (continued)

- 12/2019 ■ **Major League Hacking, Local Hack Day event Organizer**, Society of Computing and Information Science, Guelph, ON.
- 12/2018 ■ **Major League Hacking, Local Hack Day event Organizer**, Society of Computing and Information Science, Guelph, ON.
- 09/2018 – 04/2020 ■ **Society of Computing and Information Science, System Administrator**, University of Guelph, ON.
- 04/2017 – 06/2018 ■ **Full Stack Developer**, ActivNtel, Guelph, ON.
- 01/2016 – 02/2017 ■ **Climbing Gym Monitor**, University of Guelph, ON.
- 09/2016 – 06/2017 ■ **Web Developer**, NGTronix, Guelph, ON.

## Committees

- 09/2019 – present ■ **IT Strategy Advisory Committee**. University of Guelph, ON.
- 01/2018 – 04/2019 ■ **Roboticon Planning Committee** Society of Computing and Information Science, Guelph, ON.
- 09/2017 – 04/2019 ■ **Computer Infrastructure Committee** School of Computer Science, University of Guelph, ON.
- 09/2018 – 04/2019 ■ **Curriculum Committee** School of Computer Science, University of Guelph, ON.








## Awards and Recognitions

- 09/2020 ■ **University of Guelph GSA Conference Runner up**, (\$30) Awarded to the two runner up presenters for the student run conference.
- 04/2020 ■ **Erin Angus Graduate Student Award**. Awarded to a graduate student for making significant contributions to student life by Graduate Student Association.
- **CEPS Dean's Tri-Council Scholarship**, (\$5000) Deans Scholarship awarded to NSERC award holders, University of Guelph, ON.
- **Canada Graduate Scholarships-Master's Program**, (\$17500) Natural Sciences and Engineering Research Council of Canada (NSERC) Scholarship, University of Guelph, ON.
- 02/2020 ■ **Ontario Graduate Scholarship**, (\$5000) A merit based academic scholarship, University of Guelph, ON.
- 05/2019 ■ **College of Engineering and Physical Sciences Society of Excellence**, Demonstrated academic excellence and outstanding contributions to the university community, University of Guelph, ON.
- **College of Engineering and Physical Science Deans Honours List**, University of Guelph, ON. F15, W16, F16, W17, F17, W18, F18, W19
- 10/2018 ■ **Dr. James Linders Scholarship**. (\$500) Awarded for achieving the highest third year average by the School of Computer Science, University of Guelph, ON.
- 09/2015 ■ **University of Guelph Entrance Scholarship**. (\$2000) Awarded for being admitted with an average greater than 85% by the University of Guelph, ON.

## Research Grants

- 04/2020 ■ **Northern Scientific Training Program**. (\$2150) Awarded to conduct fieldwork in Northern Canada by Polar Knowledge Canada.
- 04/2019 ■ **Northern Scientific Training Program**. (\$2307) Awarded to conduct fieldwork in Northern Canada by Polar Knowledge Canada.

## Non Academic Presentations

- 09/2020     **Introduction to Git**, Guelph Coding Community, Guelph, ON.
- 03/2020     **MSc. Seminar - Incorporation of Human Mobility in Data Replication Schemes in Mobile Ad Hoc Networks**, Guelph Coding Community, Guelph, ON.
- 09/2019     **Advanced Git**, Guelph Coding Community, Guelph, ON.
-  **Introduction to BASH and Git**, Guelph Coding Community, Guelph, ON.
- 04/2019     **Bridging the Digital Divide with Mobile Ad Hoc Networks in the Circumpolar North**, Guelph Coding Community, Guelph, ON.
- 12/2018     **Major League Hacking Localhost Workshop**, Society of Computing and Information Science, Guelph, ON.
- 11/2018     **Mesh Networking**, Guelph Coding Community, Guelph, ON.

## Research Publications





### Conference Proceedings

- 1    **Asch, M.**, Seymour, P. F., Ernst, J. & Gillis, D. (2019). Incorporation of Node Mobility in Data Replication Schemes in Mobile Ad Hoc Networks. In *2019 IEEE 10th Annual Information Technology, Electronics and Mobile Communication Conference (IEMCON)* (pp. 0230–0236). Oral presentation and Preceding. doi:10.1109/IEMCON.2019.8936268
- 2    Durish, N., Gillis, D., Seymour, P. F., Rourke, K., **Asch, M.**, Raturi, S., ... Ernst, J. (2019). Bridging the digital divide in the circumpolar north [abstract]. In *Labrador research forum*, Happy Valley-Goose Bay, Labrador, Canada.
- 3    Gillis, D., Durish, N., Rourke, K., **Asch, M.**, Knarr, J., Samuels, J., ... Harper, S. L. (2019). Supporting community-based monitoring with technology in the circumpolar north [abstract]. In *Labrador research forum*, Happy Valley-Goose Bay, Labrador, Canada.
- 4    Durish, N., Gillis, D., Seymour, P. F., Rourke, K., **Asch, M.**, Raturi, S., ... Ernst, J. (2018). Bridging the digital divide to support community-based monitoring in the circumpolar north [abstract]. In *Arcticnet*, Ottawa, Ontario, Canada.

### Conference Presentations

- 1    **Asch, M.**, Lin, X. & Gillis, D. (2020). Impact of social interactions on mobile ad hoc networks. Graduate Students Association Virtual Conference, Guelph, Canada.
- 2    **Asch, M.**, Rourke, K., Seymour, P. F., Durish, N., Flowers, C., Wood, M., ... Ernst, J. (2019). Bridging the digital divide with mobile ad hoc networks in the circumpolar north. Western Student Research Conference, London, Canada.

## Skills

- Languages     Strong reading, writing and speaking competencies for English,  $\text{\LaTeX}$
- Coding     Java, SQL, Git, BASH,  $\text{\LaTeX}$ , C, Node.js, Python
- Databases     MySQL, PostgreSQL, MongoDB.
- Web Dev     HTML, JavaScript, Apache Web Server, Nginx Web Server.

## References

Available on Request

Last updated: 28th February 2021