

DATA SCIENCE FALL 2022 ORIENTATION

9/9/2021 @ 9am in M3 2103 Data Science Grad Lounge

Time	Activity	Speaker(s)
9:00 am	Welcome, Registration and CONTINENTAL BREAKFAST	Ryan/Silvana
9:15 am	Roundtable Introductions	Silvana
9:30 am	Icebreaker	Ryan
9:50 am	Director Greetings and Introduction to the Program	Mu
10:00 am	BREAK	
10:10 am	Administration & Program Overview	Ryan/Silvana
10:25 am	Co-op Introduction	Justin Kiefer
10:35 am	Vector Institute	Taylor Walker
10:50 am	Program Ambassador & MGSA (Virtual join)	Hrithik Gavali
11:00 am	Computer Lab and Software	Jim Johnston
11:20 am	BREAK	
11:30 am	Open Panel with Profs, Director, Taylor	Multiple
12:00 pm	International Student Office	Edita Gachene
12:15 pm	Next Steps	Silvana/Ryan
12:20 pm	EVENT CONCLUDES	



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WELCOME & INTRODUCTIONS

Ryan McGuinness & Silvana Shamuon
Graduate Program Administrators
Data Science Graduate Program



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INTRODUCTIONS!



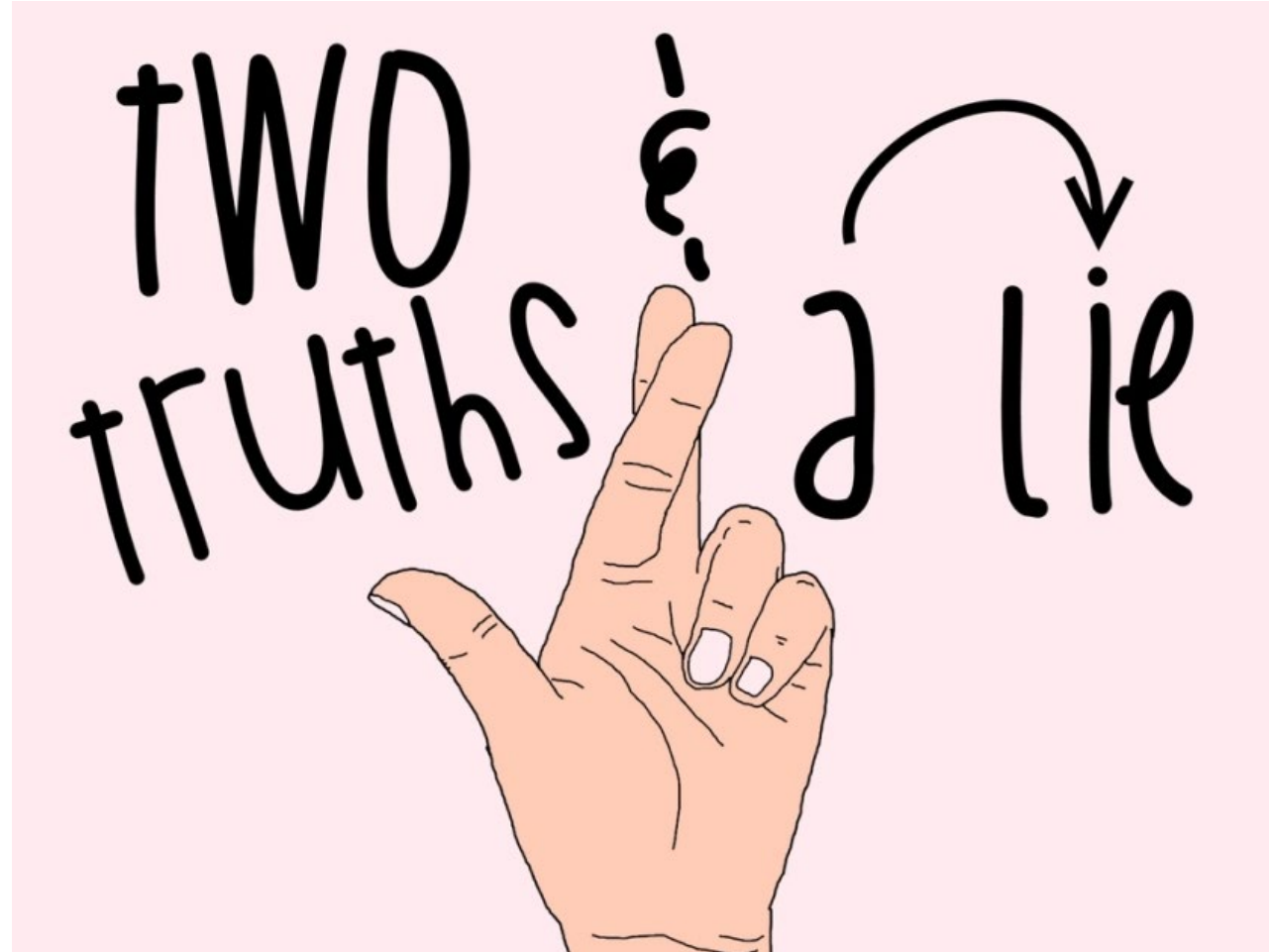
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DATA SCIENCE | FALL 2022 ORIENTATION

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ROUNDTABLE INTRODUCTIONS

1. Your name
2. Where you are from
3. What you were doing before graduate studies
4. Why you decided to apply for MDSAI/MMath
5. Some fun facts about yourself (2 truths & 1 lie style!)

Tell us 2 truths and 1 lie in any order and the class will guess which fact is a lie!



JEOPARDOY

GREETINGS FROM THE DIRECTOR

Mu Zhu,
Director
Data Science Graduate Programs

THANKS TO MY PREDECESSORS!

- Professor Yuying Li
 - Founding Program Director (< 2021)
- Professor Stephen Vavasis
 - Interim Program Director (2021.01 – 2021.08)



I DECLARE THE OFFICIAL BEER OF OUR PROGRAM TO BE ...

- Three reasons:
 - Ryan
 - Silvana
 - Statistics



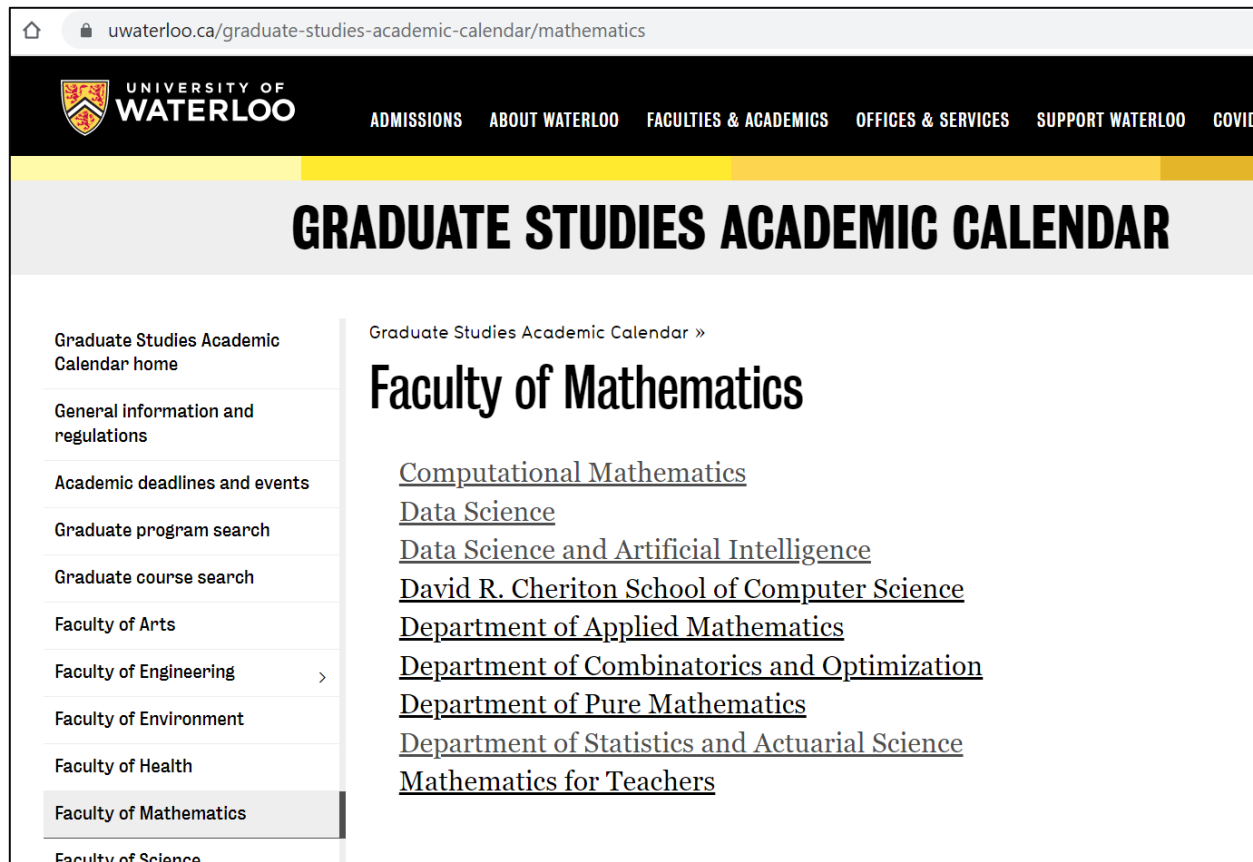
MY PERSONAL ADVICE TO STUDENTS



- mathematics/theory **vs** software/practice
 - ability to **create** new software, not just **use** existing software
- skill/vision/perspective **vs** specific knowledge
 - focus on broadening your **experiences** and tasting different **ways of thinking**
 - not a checklist of **specific know-hows**—many become outdated fast anyway
 - not “end of the world” if a specific course is not available; take another one
- faculty freedom in teaching **vs** a fixed, rigid, standardized syllabus
 - if the latter, there’d be no value in going to “top schools”

THE “GRADUATE CALENDAR” IS OUR “CONSTITUTION”!

- <https://uwaterloo.ca/graduate-studies-academic-calendar/mathematics>



The screenshot shows the University of Waterloo website's Graduate Studies Academic Calendar for the Faculty of Mathematics. The page features a navigation menu with links to Admissions, About Waterloo, Faculties & Academics, Offices & Services, Support Waterloo, and COVID-19. The main heading is "GRADUATE STUDIES ACADEMIC CALENDAR". A sidebar on the left lists various navigation options, with "Faculty of Mathematics" selected. The main content area displays the "Faculty of Mathematics" page, which includes links to various departments and programs:

- [Computational Mathematics](#)
- [Data Science](#)
- [Data Science and Artificial Intelligence](#)
- [David R. Cheriton School of Computer Science](#)
- [Department of Applied Mathematics](#)
- [Department of Combinatorics and Optimization](#)
- [Department of Pure Mathematics](#)
- [Department of Statistics and Actuarial Science](#)
- [Mathematics for Teachers](#)

Data Science

Data Science and Artificial Intelligence

EXAMPLES:

- Core courses
 - “At the discretion of the Data Science Committee, substitutions may be allowed.”
- Elective courses
 - “Courses not on this list are subject to the approval of the Graduate Director.”
- “In order to remain in good academic standing, students must maintain an average of 75% and a minimum grade of 70% in all their courses. ... Students whose average falls below the program’s minimum requirements may be required to withdraw from the program.”

WHOM TO APPROACH?

- specific >>>>>>>>> program **administrator** (i.e., Ryan + Silvana)
 - e.g., forms, rules/procedures (co-op, graduation, ...), ...
 - Office hours (Fall 2022):
 - T (M3 2103 lounge meeting room), 10 – 11:30AM
 - Th (M3 2118 office), 10 – 11:30AM
 - **email:** ds.grad.admin@uwaterloo.ca
- “philosophical” >>>>>>>>> program **director** (i.e., Mu)
 - e.g., advice (academic, career, ...), concerns, complaints, ...
 - office hours (**Fall** 2022): M, 14:30-16:00 & W, 15:45-17:15; M3 2103
 - **email:** ds-director@uwaterloo.ca
 - **telegram:** [@statprofz](#) (experimented last year, will continue this year)

COMPUTING & SPACE INFORMATION

Mu Zhu,
Director
Data Science Graduate Programs



COMPUTING AND SOFTWARE

- The mandatory Math Faculty Orientation on September 6th should have included important information regarding:
 - VPN, eduroam, ...
 - Servers (linux.math.uwaterloo.ca, windows.math.uwaterloo.ca, ...)
 - also biglinux.math.uwaterloo.ca, fastlinux.math.uwaterloo.ca
 - Software (R, Python, Matlab, Microsoft 365, ...)
 - File Storage (files.math.uwaterloo.ca)
 - UW IT departments + help desk
 - etc



SPACES

- The Data Science program has designated student spaces in the M3 building!
- [Quiet](#) study space (M3, Rm. 2102) with many terminals
 - **either** log directly into windows.math.uwaterloo.ca or linux.math.uwaterloo.ca
 - **or** use as docking station (screen + keyboard) for your own laptop
- Lounge (M3, Rm. 2103) for study groups, hanging out, ...
 - **note: program has right of first use** (e.g., director's office hours, meetings of the steering committee, etc)

BREAK

Next up: Administration & Program Overview

ADMINISTRATION & PROGRAM OVERVIEW

Ryan McGuinness & Silvana Shamuon
Graduate Program Administrators
Data Science Graduate Program



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ADMINISTRATIVE TOPICS

1. Your **EMAIL** account (ending in @uwaterloo.ca) is set up automatically at the time of enrollment but you may need to register. Check your **UW email** regularly.
2. Update your **MAILING ADDRESS** on QUEST as soon as possible. As the university will use this as your primary mailing address.
3. For MMath in DS students, funding is handled by your home unit (your supervisor's department/school). Please connect with them if you haven't already and copy ds.grad.admin@uwaterloo.ca.



TYPE ALL FORMS!

Remember, UWaterloo **DOES NOT** accept handwritten forms. All forms will be electronically fillable using [Adobe Reader](#) or MS Word.



MANDATORY GRADUATE STUDENT TRAINING

Grad students must complete the following training modules in the first 8 weeks.

Delivery	Course ID	Duration
Online – Safety Office	<u>Employee Safety Orientation (SO1001)</u>	~60 min
Online – Safety Office	<u>WHMIS 2015 (SO2017)</u>	~45-60 min
Online – Safety Office	<u>Workplace Violence Awareness (SO1081)</u>	~60 min
Online – LEARN (for TAs only)	<u>Accessibility Training module</u>	~30 min
Online – LEARN	<u>Graduate Academic Integrity Module</u>	~1-2 hours

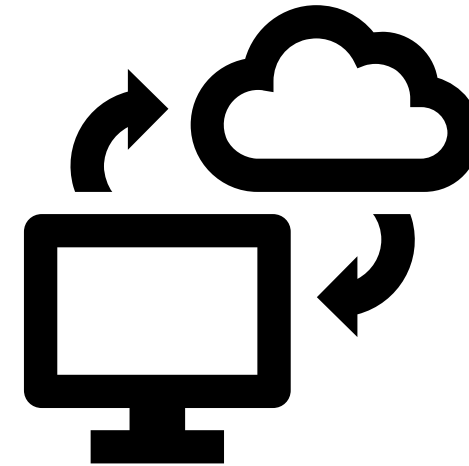
DATA SCIENCE GRAD STUDENT SUPPORT AND RESOURCES

Support Area	What They Do	Location/Contact
Graduate Studies and Postdoctoral Affairs (GSPA)	Provides support to students, postdocs, staff and faculty who are engaged in graduate work and research at the University of Waterloo.	The Centre, Needles Hall , 2 nd floor, room 2201 askthecentre@uwaterloo.ca 519-888-4567 ext.42268
The Centre	General UWaterloo questions, official documents	The Centre, Needles Hall , 2 nd floor, room 2201 askthecentre@uwaterloo.ca 519-888-4567 ext.42268
Counselling Services	Professional counselling services are provided, at no charge, in a private and confidential setting to UWaterloo students. Get self-help, mental health, urgent care contact information and more.	Needles Hall, 2nd floor 519-888-4567 ext. 32655
Health Services	Provides convenient, confidential and comprehensive medical care to registered students at Waterloo. They work in coordination with other health-related services on campus and in the Kitchener-Waterloo community.	Health Services Building 519-888-4096
Student Success Office (SSO)	Provides and facilitates strategic student support for academic and personal success. *Support for international students include immigration consulting, SIN, application help, etc.	South Campus Hall , second floor 519-888-4567 ext. 84410
Co-operative Education & Centre for Career Action (CCA)	General co-op questions, interview and career services available to students	William M. Tatham Centre (TC) ceca@uwaterloo.ca 519-888-4026



COVID-19 AND FALL 2022

1. For Fall 2022, graduate data science courses will be available in-person and some online instruction may be available as shared by your instructor ([read more details](#)).
2. Students will require a fast and reliable internet connection to access virtual computing resources (more information to follow), complete coursework, and attend any live lectures.
3. For those planning to come to campus in-person from outside of Canada, please check the [Government of Canada policies](#).



Further Information RE: Covid and campus given via Grad Ready (keep a look out for ongoing communication)

MASTER OF DATA SCIENCE AND ARTIFICIAL INTELLIGENCE (MDSAII)



Full-time program structure

- 12 to 16-month professional coursework-based program
- Degree requirements: 9 courses and 1 co-op term*

**students may extend their work term for up to 8 months with the same employer*

Part-time program structure

- 36-month duration with 1 course per term

Courses at a glance

(not an exhaustive list)

- Data-Intensive Distributed Computing and Analytics
- Exploratory Data Analysis
- Statistical Learning: Classification
- Convex Optimization and Analysis
- Data Visualization
- Database Systems Implementation
- Machine Learning: Statistical and Computational Foundations
- Probabilistic Inference and Machine Learning
- Advanced Topics in Artificial Intelligence
- Optimization for Data Science
- Computational Inference
- Principles of Data Management and Use
- Distributed Systems

MDSAI CO-OP (SPRING 2021)

This cohort's co-op term is **Spring 2023 (May – August 2023)**.

***Mandatory preparatory workshops** for co-op Masters students will be held on the following dates: You must attend **ALL 3 dates** to complete these workshops before your co-op term. These will be virtual and the links below will take you to the appropriate Zoom meeting.

Workshop	Date	Time
<u>Co-op Documents (Résumés, cover letters) workshop</u>	Thursday Sept 29 th	10 - 11:30AM
<u>Interviews workshop</u>	Thursday October 6 th	10 - 11:30AM
<u>Co-op Education process & strategy workshop</u>	Thursday October 20 th	10 - 11:30AM

*International students will require a **co-op work permit**. Justin Kieffer from Co-operative Education will go into more detail later.

MASTER OF MATHEMATICS IN DATA SCIENCE (MMATH IN DS)



Program Structure

- 16 to 24-month research-based program with guidance from a faculty member in the field of Data Science
- Degree Requirements:
 - 4 courses (see courses at a glance on previous slide)
 - Master's Thesis

Faculty Members' Fields of Study

- Artificial Intelligence
- Causal Inference
- Computer Systems and Databases
- Data Exploration and Analysis
- Data Visualization
- Ethics in Artificial Intelligence
- Machine Learning
- Numerical Linear Algebra
- Optimization
- Scientific Computing
- Statistical Learning

ETHICS WORKSHOPS

3 live virtual workshops instructed by Professor Maura Grossman (offered at two different times each) will be offered this Fall term to complete your required Ethics milestone.

It is strongly recommended that you complete these workshops this Fall 2022 term. More information, including syllabus and links will be provided by email in the next few weeks.

Workshop	Date Options (attend one or the other each week)	Time
Ethics Workshop 1	Monday, Sep 26 th Friday, Sep 30 th	1pm – 4pm ET 9am – 12pm ET
Ethics Workshop 2	Monday, Oct 3 rd Friday, Oct 7 th	1pm – 4pm ET 9am – 12pm ET
Ethics Workshop 3	Monday, Oct 17 th Friday, Oct 21 st	1pm – 4pm ET 9am – 12pm ET



QUESTIONS?

Prof. Mu Zhu

- Professor & Program Director
- Ds-director@uwaterloo.ca

Meetings available:

- By appointment
- Drop-in hours (M3 2103):
Mondays: 2:30-4:00PM
Wednesdays: 3:45-5:15PM

Ryan McGuinness

- Graduate Program Admin
- Ds.grad.admin@uwaterloo.ca

Meetings available:

- By appointment
- Drop-in hours:
Tues (M3 2103): 10 – 11:30AM
Thurs (M3 2118): 10 – 11:30AM

Silvana Shamuon

- Graduate Program Admin
- Ds.grad.admin@uwaterloo.ca

Meetings available:

- By appointment Mon, Tues and Wednesdays



COURSE ENROLLMENT REMINDERS

Ryan McGuinness & Silvana Shamuon

Graduate Program Administrators

Data Science Graduate Program

COURSE ENROLMENT

- Classes have already started but you may use the QUEST system on-line until **Tuesday, Sep 27th** to add classes to your schedule. Please make sure to check [GSPA's Important Dates](#) for deadlines. Below are some course-related deadlines to make note of for Fall 2021:
 - **Sep 27:** 100% tuition and fee refund deadline
 - **Sep 28-Nov 22:** Dropping a course adds a WD (withdrew) on transcript
 - **Oct 25:** 50% tuition and fee refund deadline
 - **Nov 23:** Dropping a course adds a WF (withdrew/failure) – grade 32% on transcript
- MDSAI students are normally expected to take 3 courses each study term (First Fall study term, Winter study term, Final Fall study term) for a total of 9 courses. Please consult with the Director for any exceptions to this. We strongly recommend taking a maximum of 3 courses at least in the first term.
- MMath in DS students must complete 4 courses total.
- Students lacking adequate background in computer science or statistics may be required to complete a foundation course (CS 600 or STAT 845) which you would have been instructed to enroll in already.
- EMLS (remedial language courses) do NOT count towards a student's grad course count for a term and EMLS 601R (speaking) & 602R (writing) can be taken in the same term.

COURSE SUBSTITUTION



Request to waive a core course requirement can be made by submitting [a form](#) (completed electronically) ,
Ryan/Silvana,
ds.grad.admin@uwaterloo.ca



Needs evidence (course outline, topics, textbook) indicating a previous course taken is sufficiently close to one of the core courses



The request needs the approval of program Director,
Mu Zhu
ds-director@uwaterloo.ca



The DS 701/702 project course will require a student to find a willing professor in the DS field and a [proposal](#) on the project should be sent to Director for approval.

ACADEMIC INTEGRITY

- Academic integrity is a principle highly valued at UW
- [Policy 71](#) prescribes UW disciplinary process
- **Rules on collaboration differ from course to course**
 - a. Prof A: “No collaboration”
 - b. Prof B: “Students can discuss but the final submission should be their own work”
- If the rules for a course are not clear, ask the instructor
- <https://uwaterloo.ca/academic-integrity/integrity-matters-mobile-application>

QUESTIONS?

Prof. Mu Zhu

- Professor & Program Director
- Ds-director@uwaterloo.ca

Meetings available:

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- Graduate Program Admin
- Ds.grad.admin@uwaterloo.ca

Meetings available:

- By appointment Mon, Tues and Wednesdays

<https://uwaterloo.ca/data-science/current-graduate-students>



CO-OP INTRODUCTION

Justin Kieffer

Faculty Relations Manager

Co-operative Education – Faculty of Mathematics

CO-OP IN MDSAI

- As part of the program, you will complete a 4-to-8-month co-op work experience
- Typically, your work term will be during the spring term, which means that you will begin the job search (recruitment) process during the winter term.
- It's a competitive process, not a work placement, so staying engaged and being proactive in the process is important.
- The [important Co-op dates calendar](#) is a great resource to keep on top of deadlines
- Grad co-op students are assessed a co-op fee once employment is secured according to WaterlooWorks records
- You will receive additional training and information on all things co-op in the coming weeks.

HOW WE SUPPORT YOU

- Dedicated Graduate co-op advisor ***New for Fall 2022***
 - Single-point of contact during your job search and work term
 - Your advisor will reach out to you in October
- Masters of Math Co-op Workshop sessions – Fall 2022
 - Resumes and Cover Letters
 - How to Interview Effectively
 - Co-op process and Strategy
- Centre for Career Action
 - Graduate career advisors available
 - Additional events and workshops



SOME 'DATA'...

- MDSAI students achieve exceptional levels of co-op employment, working for a variety of employers across North America including:
 - Huawei
 - Loblaws
 - Manulife Financial
 - Contextlogic/Wish
 - TD Bank
 - Blackberry
 - DarwinAI
 - The Centre for Addiction and Mental Health
- Co-op continues to see increased demand for roles focused on data science, machine learning and artificial intelligence. Recent positions MDSAI students have worked in, include:
 - Data Scientist
 - AI Infrastructure Engineering
 - Data, Insights & Analytics Assistant
 - Machine Learning Research Assistant
 - AI Developer
 - AI Researcher
 - Big Data & Machine Learning Algorithm Engineering

Explore the ['Where Students Work Dashboard'](#) to see additional types of jobs students in your program and in similar programs have held

NEXT STEPS

- Attend the workshops
 - MMath & MDSAI Co-op Series - Session 1 of 3: Documents (resumes and cover letters)
 - Thursday Sept 29th from 10-11:30
 - MMath & MDSAI Co-op Series - Session 2 of 3: Interviews
 - Thursday October 6th from 10-11:30
 - MMath & MDSAI Co-op Series - Session 3 of 3: Co-operative Education process and strategy
 - Thursday October 20 from 10-11:30
- Prepare your cover letter and resume before January
- Log into WaterlooWorks
 - You will not have access to the Co-op jobs until January, but can use the site to view jobs on the other boards, register for events and contact your Graduate Co-op Advisor
 - WaterlooWorks is the primary way your co-op advisors will communicate with you, so check it often



QUESTIONS?

VECTOR INSTITUTE + WATERLOO MMATH IN DATA SCIENCE & MDSAI

Taylor Walker

Specialist, Internships & Work
Integrated Learning

aimasters@vectorinstitute.ai



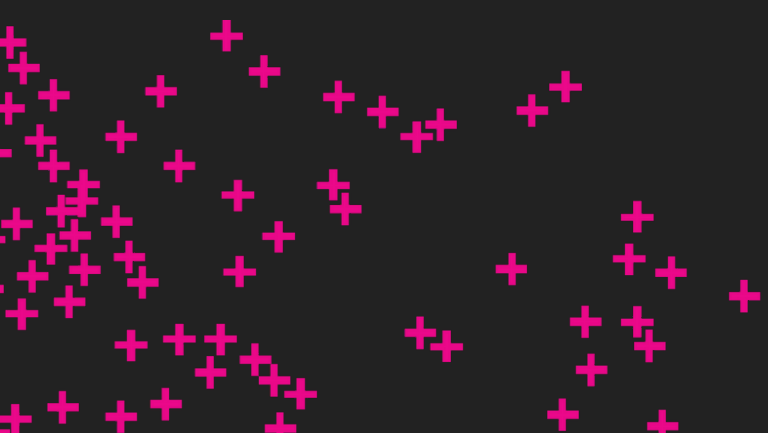
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What does the Vector Institute do?

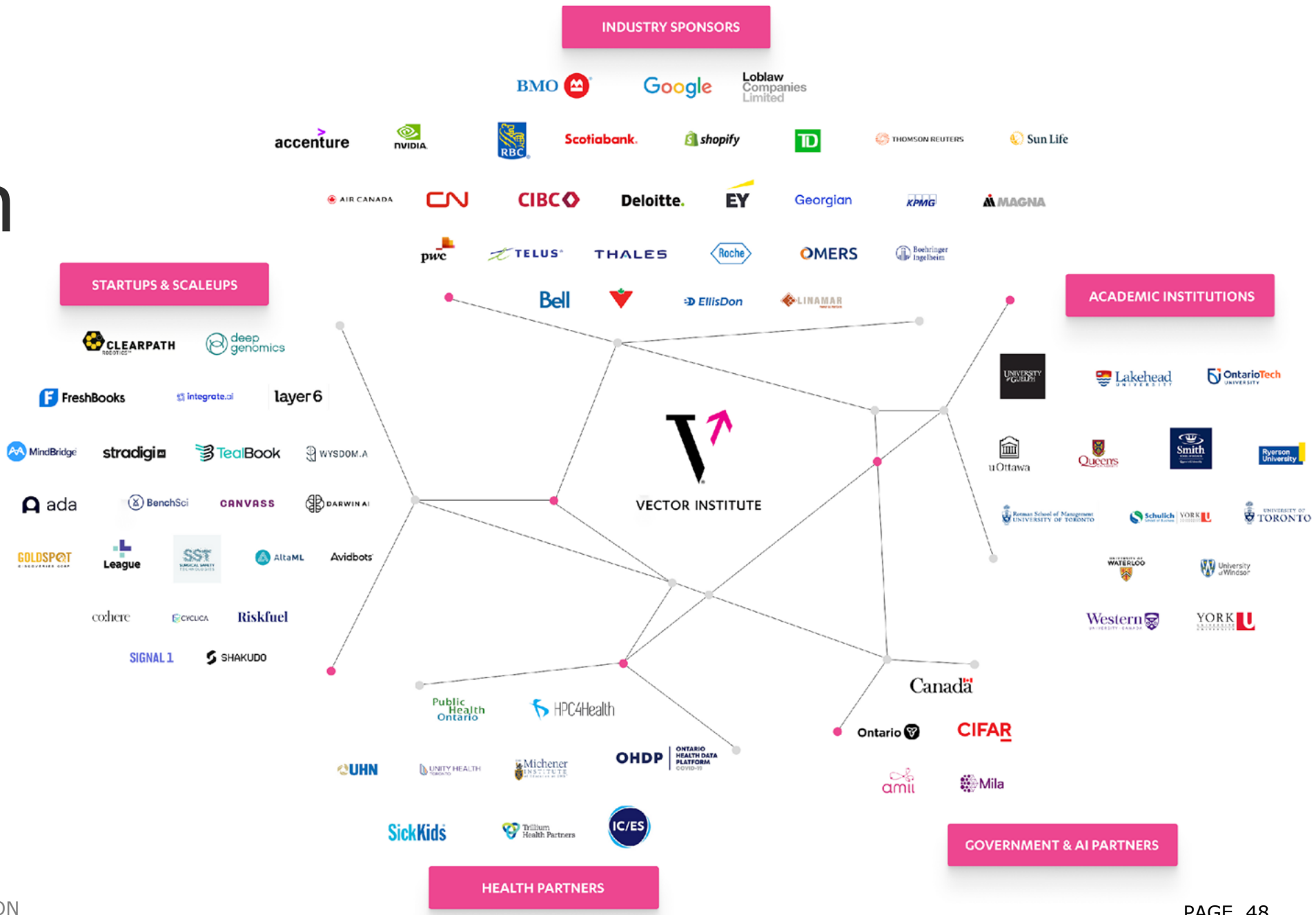
The Vector Institute is a leader in the transformative field of artificial intelligence, excelling in machine and deep learning — an area of scientific, academic, and commercial endeavour that will shape our world over the next generation.

Vector has created a community of premier AI talent by attracting and retaining top machine learning and deep learning researchers.



Who we work with

Vector helps you connect with the broader AI ecosystem in a variety of ways.



Building the next generation of AI Talent

Vector's goal is to build the next generation of top AI talent in Ontario by working with universities through program recognition and connecting you to opportunities that will accelerate your career in AI.

By joining the Master of Data Science & Artificial Intelligence program at University of Waterloo, you've automatically become a part of the Vector community. Your program is recognized by the Vector Institute as it was reviewed by a committee of Vector faculty and industry representatives working in AI.

Learn more about Vector-recognized AI Master's programs [here](#).

How you can benefit from Vector?

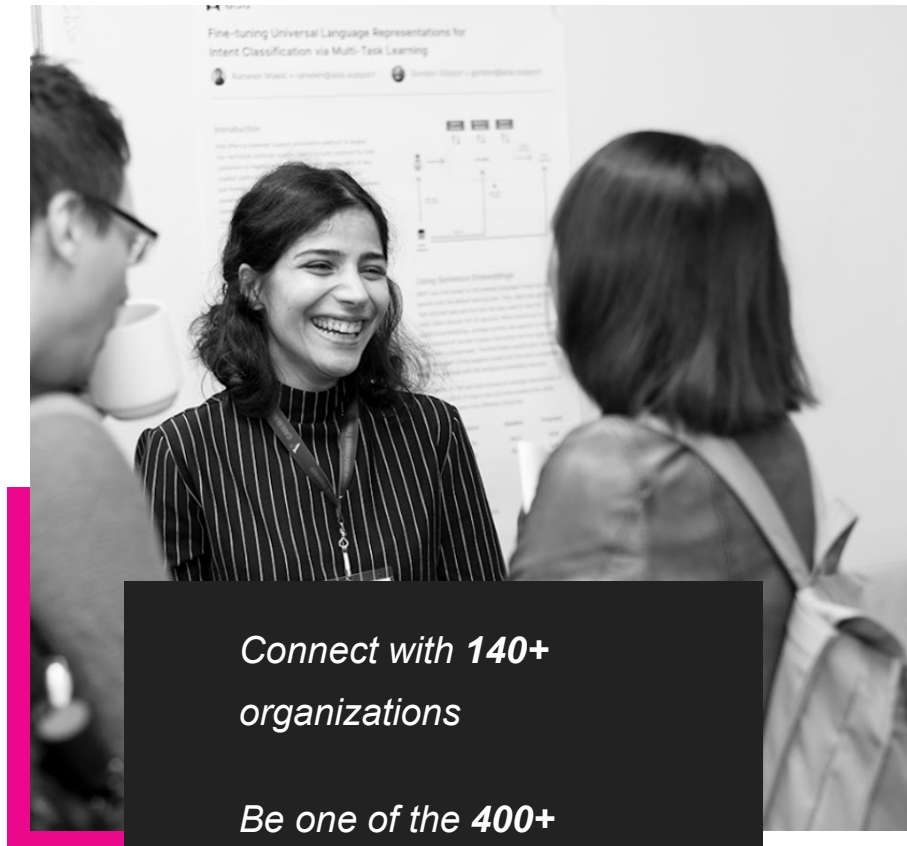
Accelerate your career in AI

Attend career exploration and recruitment-focused events, such as:

- Annual AI Summit & Career Fair on [September 22nd and 23rd](#)
- Recruitment Information Sessions

Learn about career pathways and projects in AI by exploring specific industries and topics, such as:

- Research & Careers in AI series



*Connect with 140+
organizations*

*Be one of the 400+
Vector-affiliated students
hired by Vector sponsors*

Find your next career opportunity in AI

- Connect with over 100 organizations, including Vector industry sponsors, health partners, universities and start ups on the [Digital Talent Hub](#), a curated job board for AI roles
- The platform features internships, part-time and full-time job opportunities
- Let employers find you through our candidate database



Since 2017, 3,700+ postings for AI-focused jobs and internships were offered on Vector's Digital Talent Hub

Gain exposure to the latest AI research

Learn about the latest AI research from around the globe
through events such as:

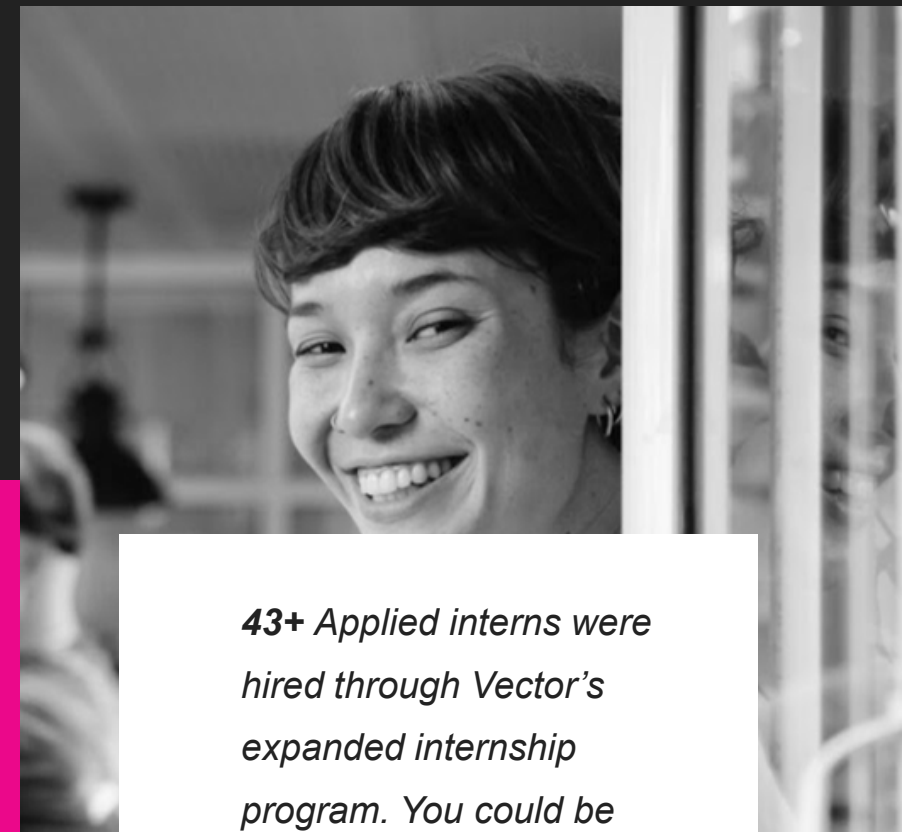
The Fields Institute Machine Learning Advances and Applications
Seminar series



*Connect with 700+
researchers in the Vector
Community*

Acquire real-world AI experience

- Work at Vector on real-world data and AI-related projects across workstreams on Applied Internships including Health, Engineering, Industry Innovation, and Research Operations & Academic Partnerships
- Work with Vector Faculty on Research Internships
- Get paid while you work full or part-time through the internship program
- Internships may be remote or in-person
- [Sign up](#) to know when applications open!



43+ Applied interns were hired through Vector's expanded internship program. You could be one of them!

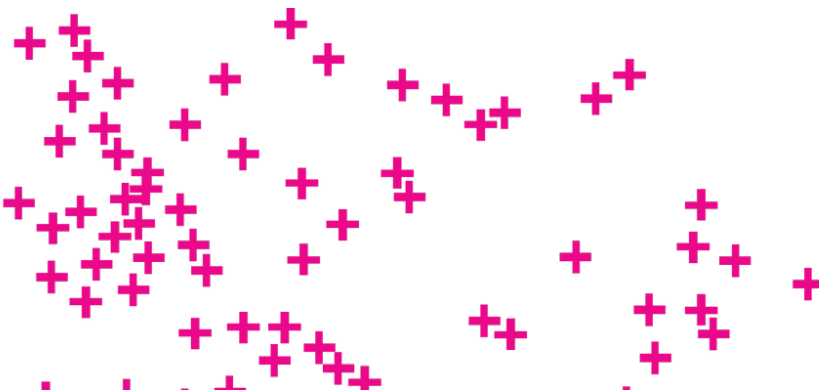
Be job ready!

- Leverage Vector for career support activities to aid you in preparing for your internship/job search or career transition
- Visit our [YouTube channel](#) to watch past webinars



85+ one-on-one career support sessions and two webinars within the past year

1,740+ Students participated in career development programming



Sara El-Shawa

MASc in Engineering (Collaborative Specialization in AI), University of Guelph '22
Vector Scholarship in AI Recipient 2020-21



“I’ve been able to collaborate and work with Vector researchers and industry sponsors on several AI projects. I’ve also had the opportunity to explore subjects I was unfamiliar with before joining Vector.”

Tips for Students: Make good use of Vector’s Annual Career Fair and Digital Talent Hub. Subscribe to Vector’s mailing list to find out about our events!

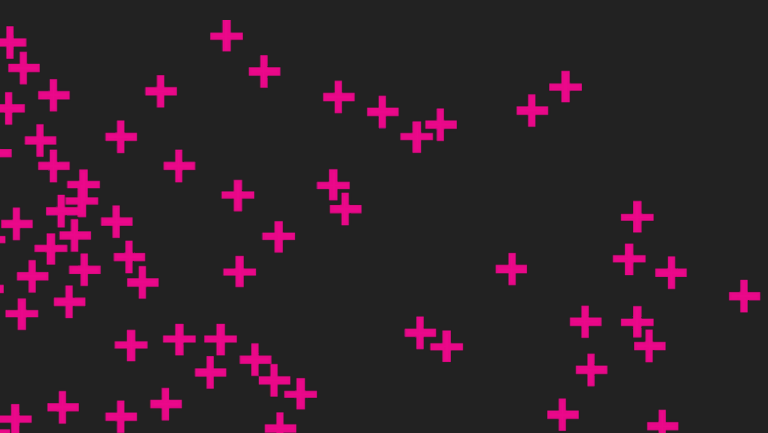
How can you get involved at Vector?



[Sign up](#) for our mailing list to hear about upcoming opportunities and events!



Questions or feedback?
Email aimasters@vectorinstitute.ai



CURRENT STUDENT PERSPECTIVE & MATH GRAD STUDENT ASSOCIATION

Hrithik Gavali

MDSAI Student
Grad Data Science Program Ambassador
Math GSA MDSAI Program Director

MDSAI AND CO-OP

From a student's perspective

Hrithik Gavali

- MDSAI Student started in Fall 2021
- Math GSA MDSAI Program Director
- Interned as a Software Developer at DRW, Montreal (Co-op)
- Previously:
 - Undergrad from India
 - Worked for 2 years at Barclays before joining uWaterloo



MDSAI AND CO-OP

From a student's perspective

What will I talk about ?

- Math GSA
- Course Selection
- Co-op
- Time Management , Part-time work?
- Academic Integrity
- Waterloo, in and around



MDSAI AND CO-OP

From a student's perspective

Math GSA

- Objectives (in the Faculty of Mathematics)
 - Providing a forum for the voices of all graduate students
 - Representing the interests of graduate students
 - Promoting, directing and coordinating activities that will benefit the members.
- Duties as a Math GSA MDSAI Program Director
 - Monthly board meeting with Math GSA
 - Arranging events for students of the MDSAI program
 - One-year program = one-year service time
- Running for the position!
 - An email will be sent out for the election (September 2022) from Math GSA



MDSAI AND CO-OP

From a student's perspective

Course Selection

- My course structure:

Fall 2021	Winter 2022	Summer 2022	Fall 2022
STAT 845 Statistical Concepts for Data Science	STAT 847 Exploratory Data Analysis	Co-op	CS 794 Optimization for Data Science
STAT 842 Data Visualization	CS 680 Introduction to Machine Learning		STAT 841 Statistical Learning
CS 651 Data Intensive Distributed Computing	CS 679 Neural Networks		COGSCI 600 Seminar in Cognitive Science

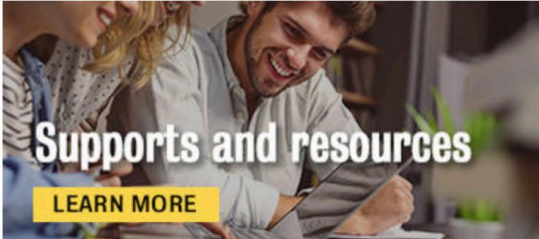
MDSAI AND CO-OP

From a student's perspective

Co-op

- Process: 5 cycles with each cycle consisting of:
 - Job postings
 - Applications
 - Shortlisting and interviews
 - Ranking and matches
- These Cycles start in the previous term itself. (for example, if your Co-op is in Summer 2023, these cycles would start in Jan 2023 (Winter semester))
- <https://uwaterloo.ca/co-operative-education/>

CHECK ALL Important dates	HOW TO Find your co-op job	ACCESS WaterlooWorks
LEARN ABOUT Co-op work term updates due to COVID-19		WE HAVE Jobs and funding available through various programs!

 <p>Need help with co-op? Connect with your co-op advisor</p> <p>LEARN MORE</p>	 <p>Supports and resources</p> <p>LEARN MORE</p>
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Events

Employer info sessions	Career/Job Fair	GCA workshops and events
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MDSAI AND CO-OP

From a student's perspective

Time Management & Part-time work

- 3 courses per semester: demanding coursework.
- Make sure to attend classes and plan your schedule according to the assignment due dates.
- Working Part-time: Not recommended (at least for the first semester). Gauge the course load, your schedule and decide on working part time in the later semesters.
- TA opportunities available (although not guaranteed for MDSAI students).
- Second semester (Winter 2023), would be the heaviest because of the course load (assignments, exams, quizzes, etc) along with co-op applications and interviews.



MDSAI AND CO-OP

From a student's perspective

Academic Integrity

- Strict Policy for Academic Integrity (Policy 71)
- <https://uwaterloo.ca/academic-integrity/>
- Make sure **NOT** to plagiarize in any way. Cite original work wherever required. (In code, reports, papers, etc)
- **ASK** if you are unsure of doing something. You can ask the Course Instructor, Graduate Coordinator or the Program Director.
- **READ** the policy once to clear up all the doubts. For example, even reusing your own work without citation counts as plagiarism.

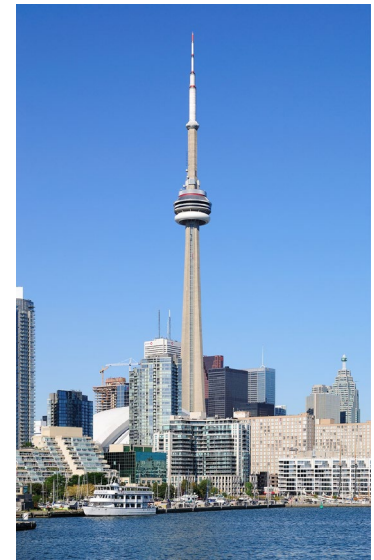


MDSAI AND CO-OP

From a student's perspective

Waterloo: in and around

- GSA activities at the Graduate House (Meetups, BBQ nights, Drinks nights)
- Waterloo and Kitchener: Pubs, Bars, Parks and Trails
- Winter Activities: Ice Skating rink at Waterloo Public Square and at Columbia Ice Field (CIF) in the University. Skiing and Snowboarding at Chicopee Ski Resort in Kitchener.
- Toronto: 1.5 hours by car or 2.5 hours by GoBus



COMPUTING AND SOFTWARE AT WATERLOO

Jim Johnston

Information Technology Specialist - Team Lead
Math Faculty Computing Facility (MFCF)

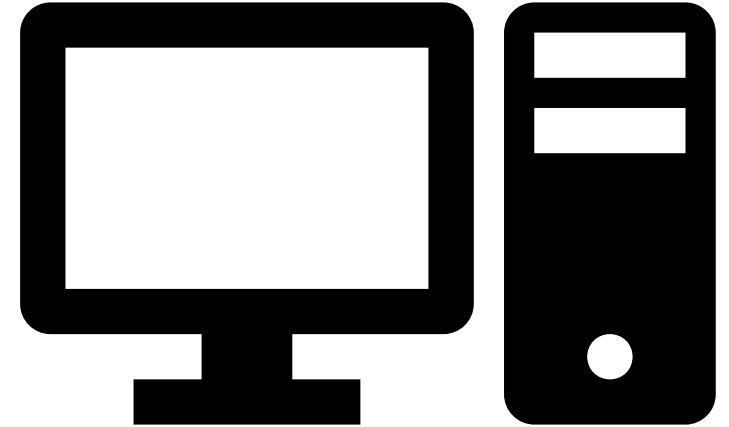


THREE ORGANIZATIONS

- IST (Information Systems & Technology) is responsible for campus-wide IT including email, firewall, Learn (course management system), Quest (student records), etc.
- MFCF (Math Faculty Computing Facility) provides servers and applications that support computing for the Faculty of Math except...
- CSCF (Computer Science Computing Facility) provides servers and applications for the Cheriton School of CS.
- MDSAI students are supported by MFCF but may also use services from CSCF if the service pertains to a CS course.

DATA SCIENCE LAB

- Data Science students normally have access to the dedicated Data Science computer lab located in connected rooms M3 2119 and M3 2102.
- Features 37 thin clients in carrels and a group silent study
- HDMI cables are provided to connect monitors to your personal laptop



DATA SCIENCE LAB RULES

- Please do not eat or drink in the computer lab.
- Ensure that all original equipment (keyboard, mouse, monitor, etc.) is plugged back in, desk is tidy, and any personal items are removed for the next student
- Note that the orange outlets, tabletop outlets and USB ports are currently not working
- Workstations in the lab cannot be reserved and should not be left unattended with jobs running.
- Report any problems with the lab to the MFCF helpdesk (MC 3017) or send email to mfcfhelp@uwaterloo.ca



SOFTWARE AVAILABLE

- Microsoft Office should already be installed on MFCF supported computers. Students can download the current version of MS Office (M365) via the M365 web portal (portal.office.com).
- Matlab and all toolboxes are available on servers and may also be downloaded to your personal device. To download Matlab, go to www.mathworks.com, select 'Academia', and fill out the form for the campus license.
- Popular free software used in Math such as R, Python, and Julia are available on servers.
- Waterloo also has a campus-wide license for [Overleaf](https://overleaf.com), a tool for collaboratively editing LaTeX on the web.

FILE STORAGE

- Your files are stored on a network drive, not on the thin client
- Using the network drive outside of logging into a thin client requires installation of the VPN (next slide).
- Waterloo offers two options for networked files: Office365 cloud storage (recently renamed “Microsoft 365”) and network drives.
- Microsoft 365 storage can be downloaded (see IST website) and provides up to 5TB of storage.



CISCO ANYCONNECT VPN CLIENT

- To access network files and compute servers at Waterloo from off-campus, you must first install and run the AnyConnect VPN client.
- This client may be [downloaded from the IST website.](#)



NETWORK DRIVE

- Every Data Science student is given a home network drive
- Your network drive is accessible from all on-campus servers.
- It is also available on your personal device off-campus if you connect through the firewall with the VPN.
- The server is called `files.math.uwaterloo.ca`; instructions for mounting it on both Windows and Mac are available from the [MFCF website](#).
- If your network connection is too slow to support interactive use of your network drive on your local device, you should connect long enough to manually make a local copy.

COMPUTE SERVERS

- You can connect to Linux servers using ssh and windows servers using RDP. VPN is required off-campus.
- The servers are named `linux.math.uwaterloo.ca` and `windows.math.uwaterloo.ca`.
- Information on how to connect is available from the [MFCF website](#).
- As mentioned earlier, many mathematical/computational software packages are already installed on the servers.



OPENING A TICKET

- If you need IT assistance, you should open a ticket at rt.uwaterloo.ca. If the ticket pertains to IST (email, Learn, etc.), use the “general” queue. If the ticket pertains to an MFCF service or CSCF service, use the [MFCF](#) or CSCF queue.
- You can also request help by email: helpdesk@uwaterloo.ca for IST; mfcfhelp@uwaterloo.ca for MFCF, and cscfhelp@uwaterloo.ca for CSCF; in these cases, the help-desk staff member will open a ticket for you.



BREAK

Next up: Open Panel Discussions

*Think about some questions for our Director, Professors
and Taylor from the Vector Institute!*

OPEN PANEL DISCUSSIONS

Think about some questions for our Director, Professors and Taylor from the Vector Institute!



STUDENT SUCCESS OFFICE

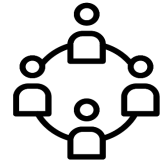
Edita Gatchene

Specialist, International Student Programs



STUDENT SUCCESS OFFICE (SSO): INTERNATIONAL SUPPORTS

The following supports for international students are available through the SSO:



International Student Experience

International Student Guide
(including travel and quarantine resources)

International Student Connection e-Newsletter

Breakfast Seminars

International Peer Community (IPC)

UWaterloo



Immigration Consulting

Online or in-person same-day appointments with a registered Immigration Consultant

Immigration Information Sessions



Campus-wide support

Campus-wide international student initiatives

Work with Faculty-based Academic Advisors

International student F.A.Q.s on the Coronavirus Information website

STUDENT SUCCESS OFFICE: INTERNATIONAL STUDENT SUPPORT

Immigration Consultants

- **Ask questions** about **study permit conditions** and **policies for working** as an international student in Canada
- Get help with your **immigration-related applications** (i.e. study permit extension, co-op work permit and/or post-graduation work permit)
- Receive **immigration support** for graduate student dependants and information on how to invite your family to visit
- Visit their **website** for general immigration information: <https://uwaterloo.ca/student-success/international-student-resources/immigration-consulting>
- Submit a **web form inquiry** to our team of consultants: uwaterloo.ca/student-success/ask-immigration-consultant
- Remote and in-person **same-day appointments** are available Monday – Friday, 10:00 a.m. to 4:00 p.m. You can sign-up via Waterloo’s **Portal** app; registration starts at 8:00 a.m. each weekday
- Register your immigration status through Portal’s **Immigration Document Reminder System**. (click on the goose icon and enable the “Are you an International Student?” switch)

 PORTAL



STUDENT SUCCESS OFFICE: INTERNATIONAL STUDENT SUPPORT

Immigration Information Sessions

- Immigration Consultants also host weekly **Immigration Information Sessions** on a number of topics. You can sign up via Waterloo's **Portal** app.
- These sessions are held online through Microsoft Teams. After registering, you will receive a direct Microsoft Teams link to join approximately 20 minutes before the session begins.
- Spaces are limited, so sign up soon!

Sessions on offer for Fall 2022 term

- [Co-op Work Permit](#)
- Working in Canada
- Post-Graduation Work Permit (Grad)
- How to Apply for a New Temporary Resident Visa (TRV)
- Flagpoling
- Permanent Residence - OINP
- Pathways to Permanent Residency (to be announced)

NEXT STEPS

Ryan McGuinness & Silvana Shamuon

Graduate Program Administrators
Data Science Graduate Program

HOW TO CONNECT WITH YOUR COHORT

- Telegram App



SCAN ME



Download the Telegram App.



Join the conversation here:
<https://t.me/+p1LJkywzmoAxNTRh>

NEXT STEPS

1. Courses officially started this Tuesday, September 6th! You should be enrolled in 3 courses by now (+ remedials if applicable)
2. Ensure you mark ALL co-op workshops (for MDSAI full-time students) and ethics workshops (all DS students) in your calendar:

Workshop (Zoom links)	Date	Time
Ethics Workshop 1	Monday, Sep 26 th OR Friday, Sep 30 th	1pm – 4pm ET 9am – 12pm ET
Ethics Workshop 2	Monday, Oct 3 rd OR Friday, Oct 7 th	1pm – 4pm ET 9am – 12pm ET
Ethics Workshop 3	Monday, Oct 17 th OR Friday, Oct 21 st	1pm – 4pm ET 9am – 12pm ET
<u>Co-op Documents (Résumés, cover letters) workshop</u>	Thursday Sept 29 th	10 - 11:30am ET
<u>Interviews workshop</u>	Thursday October 6 th	10 - 11:30am ET
<u>Co-op Education process & strategy workshop</u>	Thursday October 20 th	10 - 11:30am ET

NEXT STEPS

3. Complete online mandatory training modules

Delivery	Course ID	Duration
Online – Safety Office	Employee Safety Orientation (SO1001)	~60 min
Online – Safety Office	WHMIS 2015 (SO2017)	~45-60 min
Online – Safety Office	Workplace Violence Awareness (SO1081)	~60 min
Online – LEARN (for TAs only)	Accessibility Training module	~30 min
Online – LEARN	Graduate Academic Integrity Module	~1-2 hours

4. Check your UW email and update Quest personal information

International students:

- Connect with The Centre for help with immigration documents, SIN, health insurance, etc.
- Apply for a co-op work permit if you haven't already and attend the [Co-op Work Permit session on Sep 14](#)

UNIVERSITY OF
WATERLOO



FACULTY OF MATHEMATICS