CS GRAD STUDENT ORIENTATION

Spring 2025



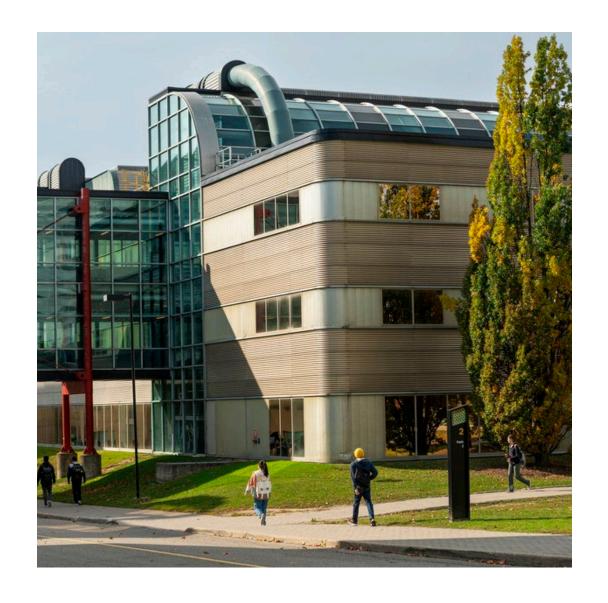


DAVID R. CHERITON SCHOOL OF COMPUTER SCIENCE

Today:

- 1. Welcome from Cheriton School of CS
- 2. Graduate Advocates
 Professors Kate Larson and Richard Trefler
- 3. CS Graduate Student Association Gengyi Sun, Evelien Riddell, Harrum Noor, Ruizhe Wang, & James Riddell
- 4. Computer Science Computing Facility Lori Paniak
- 5. Grad Office Orientation CS Grad Office

Appendix
Library Services
Rebecca Hutchinson



WELCOME TO GRAD SCHOOL

School of Computer Science leadership



Raouf BoutabaDirector of the School



Khuzaima DaudjeeDirector of Grad Studies



Shane McIntoshAssoc. Director of Grad Studies

A message from Khuzaima Daudjee, Director of Grad Studies

GRADUATE ADVOCATES

PROFESSORS RICHARD TREFLER

Graduate Advocate

Your CS Advocates:





Richard Trefler (<u>trefler@uwaterloo.ca</u>)

Kate Larson (<u>kate.larson@uwaterloo.ca</u>)

You can also talk to <u>other advocates in the Faculty of Math</u>

- Responsible for interacting with graduate students on matters that are related to their graduate student experience, in a confidential setting
 - Items you want brought to the grad director's attention but are not comfortable discussing with them directly
 - Second opinion on advice, requests, comments made to you by your supervisor
 - Changing supervisors
 - ...
- Everything is "off-the-record" unless you desire otherwise.



CS GRADUATE STUDENT ASSOCIATION

GENGYI SUN, EVELIEN RIDDELL, HARRUM NOOR, RUIZHE WANG, & JAMES RIDDELL

CSGSA Board Members



Evelien Riddell evelien.riddell@uwaterloo.ca



Gengyi Sun gengyi.sun@uwaterloo.ca



Harrum Noor harrum.noor@uwaterloo.ca



Ruizhe Wang ruizhe.wang@uwaterloo.ca



James Riddell james.riddell@uwaterloo.



Contact us



csgsa@uwaterloo.ca

Instagram: @uwcsgsa





COMPUTER SCIENCE COMPUTING FACILITY (CSCF)

LORI PANIAK TECHNICAL MANAGER, RESEARCH AND SPECIAL PROJECTS

CSCF Services

Lori Paniak

Manager, Research and Special Projects (RSG)

Idpaniak@uwaterloo.ca

DC 2625

https://teams.microsoft.com/l/chat/0/0?users=ldpaniak%40uwaterloo.ca



Very Short Version: Campus IT

 This doc: https://vault.cs.uwaterloo.ca/s/KdS22EDFrG2s37D

 Also: One-page flyer of IT services available <u>https://vault.cs.uwaterloo.ca/s/5WLD7HsXxcnznlr</u>



CSCF Structure: Three Groups

- Infrastructure (INF) Manager: Gwendoline Nubila, plus 5 staff
 - provides servers, network infrastructure, Active Directory, purchases all computing equipment for the School
- Teaching and Administration (TOP): Manager: Nick Lee, plus 5 staff
 - supports all undergraduate teaching labs, plus administrative staff, the Instructional Support Group and School meeting rooms and audiovisual services
 - CSCF Help Desk
- Research and Special Projects (RSG): Manager: Lori Paniak (me), plus 8 staff
 - provides IT support for Faculty, Grads, PostDocs and Research Visitors
 - Develop (web) Applications for the School and wider campus



Workstations when you arrive

- Research grads
 - Supervisor/you have choice of (including monitor):
 - PC Laptop Windows / Ubuntu
 - Mac Book Air (M1/M2)
 - Supervisor purchased system
 - Expect an email from "RT" on this!
- https://cs.uwaterloo.ca/cscf/about/policies/graduate-student-workstation-options



Research Support

- Each group/faculty assigned a "Point of Contact" within the Research Support Group —
 that is your "go to" person
 https://uwaterloo.ca/computer-science-computing-facility/getting-help/research-points-contact
- Other RSG staff will also help as needed
- Your point of contact has answers to all your IT questions (on campus and beyond)
- Can help out with workstations, clusters, grants, GPUs...



CSCF Help Desk

- We have a Help Desk that can handle certain tasks
 - Loan of equipment cables, display adapters, external drive bays, keyboards, mice
 - Assist with wireless issues
 - Take a problem report and get it assigned to appropriate staff
 - x31100, DC 2608 or cscfhelp@uwaterloo.ca
 - https://cs.uwaterloo.ca/cscf/getting-help/help-desk



Compute Resources

- School Linux servers: linux.cs.uwaterloo.ca
- Student Linux servers: linux.student.cs.uwaterloo.ca
- School Windows servers: windows.cs.uwaterloo.ca
- GPU cluster: watgpu.cs https://watgpu.cs.uwaterloo.ca
- VM server: https://andromeda.cs.uwaterloo.ca
- On demand servers: https://paper.cs.uwaterloo.ca/



File Storage

- Ceph distributed cluster 500GB+ per student
 - Home directory under linux.cs
 - P: drive under Windows.cs and Windows workstations
 - smb://smb-files.cs.uwaterloo.ca
 - S3 buckets
- Backup
 - Files are backed up regularly
 - Snapshots: cd .snapshot in any directory, files stored by hour, day, week



NextCloud (DropBox-like service)

- Locally stored on ceph cluster
- Up to 500GB per grad student (ask if you need more)
- Access at: https://vault.cs.uwaterloo.ca
- Download NextCloud clients or web access
- Documentation: https://cs.uwaterloo.ca/twiki/view/CF/Vault



Personal Web Pages

- https://cs.uwaterloo.ca/~youruserid
- Files in linux.cs home directory under "~/public_html"
- Create/update index.html
- Make sure to assign "world read" to your web files
 - % chmod o+r index.html



Email

- youruserid@uwaterloo.ca
 - Grad students automatically given a Office 365 account
 - Can redirect wherever you prefer with a mailbox rule:
 - i.e. Your own account (Gmail, Hotmail, etc)
 - You can also configure a "friendly" email address, e.g.:
 - <u>Lawrence.Folland@uwaterloo.ca</u>
 - Do that in https://idm.uwaterloo.ca/watiam/login.jsf?prompt=true
 - ➤ Manage Email Settings



Printing

- Can print to any of our printers listed on our CUPS server:
 - https://print.cs.uwaterloo.ca:63 l/printers/
 - Or <u>\\printers.cs.uwaterloo.ca</u> (in Windows)
 - (login with your CS-GENERAL\userid credentials)
- Setup notes:
 - https://cs.uwaterloo.ca/twiki/view/CF/WindowsPrinting
 - https://cs.uwaterloo.ca/twiki/view/CF/LinuxPrinting
 - https://cs.uwaterloo.ca/twiki/view/CF/MacPrinting
- Note: printing is tracked but not quota limited
- https://cs.uwaterloo.ca/twiki/view/CF/LinuxPrinting



High Performance Computing (SCS)

- Faculty-provided servers/clusters: thousands of CPU cores/dozens of GPUs!
 - Syn cluster Salem/Wong/Brecht (Data Systems Group)
 - RIPPLE lan Goldberg (CrySP)
 - Tembo Khuzaima Daudjee
 - CloudNetwork Raouf Boutaba
 - MI60 Ming Li (Bioinformatics)
 - Daytona Poupart/Hoey/Lizotte (Health Informatics)
 - Husky Ihab Ilyas (DB)
 - Chippie Cybersecurity and Privacy Institute
 - Himrod General use
 - watgpu.cs Al cluster
 - datasci.cs Hadoop cluster
 - Various other servers
- https://cs.uwaterloo.ca/twiki/view/CF/HighPerformanceComputingResources



HPC - SHARCNET/Compute Canada

- Compute Canada provides batch computing for large numbers of cores/memory/GPUs
- I TB storage
- Requires a Compute Canada account based on faculty sponsorship (your supervisor needs to have an account to sponsor yours)
- There is no cost to use these resources
- Systems and accounts: https://alliancecan.ca/en/services/advanced-research-computing/account-management/apply-account



Software

- Windows can be put on any Research / Teaching machine
- MS Office campus license
- <u>Visual Studio</u> free Academic license
- VMWare Math license covers vSphere Enterprise Plus, vCenter, vCloud Director, vCloud Suite, Workstation, Fusion, etc. – for research / teaching machines
- Maple free for UW users
- MatLab free for UW users
- Others talk to your Point of Contact



Questions? Feedback?

Lori Paniak

Idpaniak@uwaterloo.ca

DC2625





GRADUATE OFFICE ORIENTATION

CS GRAD OFFICE

Staff



Denise Shantz Graduate Studies Manager



Makenna Ryder Graduate Coordinator, TA & Scholarships



Nadine WitmerZinger Graduate Coordinator, PhD Programs



Cecilia Martin-Grant Graduate Coordinator, MMath Programs



Amy ToddGraduate Coordinator, Admissions & Scheduling



Savannah Kuy Grad Office Co-op Student



Agenda

- 1. Understanding your funding: GRS & TA pay
- 2. External scholarships
- 3. What to expect when TA'ing
- 4. Course enrolment
- 5. MMath co-op program
- 6. Key reminders



1. UNDERSTANDING YOUR FUNDING

Each offer contains three sources of funding:

Graduate Research Studentship (GRS)

What is it?

Pay for the work you perform as a researcher in your supervisor's lab.

Who pays it?

Your supervisor

When is it paid?

Lump sum at the beginning of term in Quest.

Teaching Assistantships (TA)

What is it?

Pay for the work you perform as a TA for undergrad courses.

Who pays it?

The School

When is it paid?

Monthly, last Friday of the month

Termly Scholarships

What is it?

IMAE, IDSA, and DGSA*

Who pays it?

The University or the School

When is it paid?

Lump sum at the beginning of term in Quest.

^{*}DGSA is an award for domestic students – it's not a separate line item in your offer but is included in the GRS line item



Funding is generally based on four TA units per year

MMath students usually have four TA units in their 1st year, and three TA units in their 2nd year:

	Term 1	Term 2	Term 3	Term 4	Term 5	Term 6
E.g. # of TA's	1 TA unit	1 TA unit	2 TA units	1 TA unit	1 TA unit	1 TA unit

PhD students have four TA units in each year:

	Term 1	Term 2	Term 3	Term 4	Term 5	Term 6	•••
E.g. # of TA's	1 TA unit	1 TA unit	2 TA units	1 TA unit	1 TA unit	2 TA units	

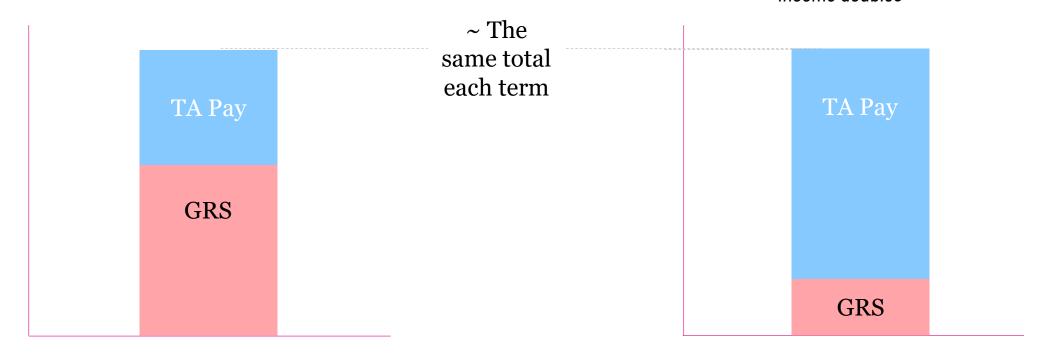
TA allocations vary term to term. Your TA pattern may not match this example exactly.



GRS funding will fluctuate with your TA units to help ensure your termly pay is regular and balanced

In terms with one TA unit, you will receive a base GRS

In terms with two TA units, your GRS is reduced as your TA income doubles



You can review expected GRS vs. TA earnings based on these charts:

MMath

PhD

Domestic

	1 TA unit term	2 TA unit term
TA	\$4,380	\$8,760
GRS	\$4,000	\$1,000

	1 TA unit term	2 TA unit term
TA	\$4,380	\$8,760
GRS	\$3,439	\$1,000

International

	1 TA unit term	2 TA unit term
TA	\$4,380	\$8,760
GRS	\$6,818	\$2,628

	1 TA unit term	2 TA unit term
TA	\$4,380	\$8,760
GRS	\$6,059	\$1,679



Beyond GRS & TA, your letters would also have included a termly scholarship:

MMath

<u>PhD</u>

Domestic

Name	Termly Amount
Domestic Graduate Student Award*	\$1,000

Name	Termly Amount
Domestic Graduate Student Award*	\$2,000

International

Name	Termly Amount
International Master's Award of Excellence	\$2,500

Name	Termly Amount
International Doctoral Student Award	\$5,140**



^{*} Incorporated in your "GRS" line item in your offer letter

^{**} May be split between two sources in some terms

If you used a promissory note to cover your tuition/fees, your funding will be deducted in the following order:



- 1. First, the tuition/fee balance will be deducted from your **GRS and** scholarships posted in Quest.
- 2. If a tuition/fee balance remains, it will be divided into four and deducted monthly from your **TA pay**.
- 3. If funding remains after paying your tuition/fee balance, it will be deposited into your Canadian bank account on file.

It is important to remember that just like your academic career, your funding is also your responsibility to track and manage:

- 1. Have I added my <u>bank account details</u> into Quest?
- 2. Do I have, at minimum, the three core sources of funding (GRS, TA, termly scholarship) accounted for in my Quest account?
 - Please note that at times your termly scholarship may appear as a "GRS" line item in Quest ensure you're checking the total funding, not just the names of the line items!
 - Please also ensure you're aware of both the eligibility and time length of your scholarships
- 3. Does my GRS rate match the amount of TA units I'm working this term?

Confused about your funding? Think you've received too much or too little? **Please reach out to <u>Cfinance@uwaterloo.ca</u>** for support!



2. EXTERNAL SCHOLARSHIPS

EXTERNAL SCHOLARSHIP DEADLINES

View more on the <u>CS Website under External awards</u>

February 1 OGS Domestic and International applications are due Note: transcript requests normally due end of January NSERC Doctoral transcript requests are due **September** NSERC Doctoral applications are due October Tri-Agency CGSM transcript requests are due November Tri-Agency CGSM applications are due December

We send updates on scholarships via our biweekly CS Grad Office Newsletter!



3. WHAT TO EXPECT WHEN TA'ING

General information for TA's

Per Policy 30, your TA contract will include more detailed expectations for your TA role. However, at minimum you can expect the following:

- One TA unit = 80 hours of total work in one term (approx. 5 hours per week)
- Two TA units = 160 hours of total work in one term (approx. 10 hours per week)
- Once you receive your TA assignment and contract, please reach out to the instructor or Instructional Support Coordinator for your course
- Always ensure you fill out the TA preference form that becomes available in the second month of term. This ensures you'll receive an appropriate TA next term.

Getting set-up to TA: a checklist

- You will receive an email from Workday within the first month of term regarding on-boarding. Please ensure you complete all on-boarding steps, including submitting your Canadian banking information. A Canadian bank account is required.
- □ Complete your <u>mandatory</u> LEARN trainings (via self-registration) in your first 8 weeks
 - □ Academic Integrity 101
 - □ CMAHRO TA Training Mathematics
 - □ Workplace Violence Awareness
 - ☐ Employee Safety Orientation
 - □ WHMIS 2015
 - **□** AODA_Training: Accessibility Training
- □ Complete your TA training (if you couldn't attend the in-person session)
- □ International students: provide your SIN to Human Resources as soon as you receive one (via Workday)



The in-person TA training will cover:

- An overview of the Instructional Support Group
- IA vs. TA work duties
- Resources available to TA staff
- How to mark/grade assignments
- Guidelines regarding conflict management*

*If you become aware of or are approached regarding any situation involving harassment or discrimination it is important that you understand your responsibilities as a TA. The link below will provide you with information on how to respond in such situations. It also contains a memo from Jeff Casello, Associate Vice President - Graduate Studies and Postdoctoral Affairs and links to Policy #33, Policy #42 and other relevant documents.

Guidelines for Teaching Assistants (TAs) | Conflict Management & Human Rights Office (uwaterloo.ca)

Please ensure that you have read through and understand this information so that you are prepared to respond if a situation involving harassment or discrimination arises.



4. COURSE ENROLLMENT

COURSE ENROLMENT TIMELINE

View more on the <u>GSPA Important Dates calendar</u>

1 month before term

Course enrolment begins

After 3 weeks into term

Course enrolment ends

After 2.5 months into term

End of WD period

Class enrolment period

- During this period, use Quest to enrol in and drop classes.
- If you are not "fees arranged" by end of class enrolment period, your classes will be dropped.

Class drop with grade of Withdrawn, no credit granted (WD)

- During this period, you can continue to drop classes in Quest however a grade of "Withdrawn, no credit granted" will be applied and remain on your transcript. WD is not an academic penalty
- Classes can be added with a drop/add form

Beyond...

 Only students with special circumstances can petition to drop a class with a course drop/add form



Remedials and non-required courses

Remedials

- Remedial courses add with a DROP/ADD form (unless at the graduate level). You should receive an email from the Undergrad office with a permission # for any remedial courses.
- Remedials must be completed in your <u>first 2</u> <u>terms</u>.
- EMLS (remedial courses) do NOT count towards a student's grad course count for a term. EMLS 601R (speaking) & 602R (writing) can be taken in the same term.

Non-required courses

- Additional courses taken for credit but not included in your program requirement must be assigned XTRA and submitted on a DROP/ADD form ASAP.
- AUDIT/READING courses add with a DROP/ADD form.



Housekeeping note

- Discuss all of your course enrolments with your supervisor. They should always know how many and which courses you are taking.
- Please only enroll in the number of courses you are allowed to take that term for your program.
- Please do not over-enroll in courses. This ties up spots from other students who might need that particular course to complete their degree! Course enrollment is monitored and we do not want to email you to drop courses.

5. MMATH CO-OP OPTION

CO-OP PREPARATION TIMELINE

View more on the <u>CS Website</u>, <u>under Math Coop Option</u>

Now

Term prior to your first co-op work term, 2 weeks before the 100% refund deadline

Determine if Co-op is a good option for you

- Discuss the co-op option with your supervisor
- International students: meet with the <u>Student Success Office</u> to understand the process for applying for a work permit (required for co-op program)

Form submissions

• Submit a *program/plan change form* and a *sequence change form* to add the co-op option to your program and set your study/work term cycle, respectively.

Meet course requirements

- Ensure you've completed four courses toward your coursework requirements
- Ensure you've completed your remedials (if applicable)



RECOMMENDED SEQUENCE FOR CO-OP

Term	Term count	Type of term	Action/notes	
S25	I	Academic	Take 2 out of 4 of the required courses	
F25	2	Academic	 Take 2 out of 4 of the required courses Apply to co-op program 	
W26	3	Academic (Master's Thesis Co-op program begins)	 Thesis research Actively searching for a co-op position 	
S26	3.5	Co-op work term	Master thesis co-op	
F26	4	Co-op work term	Master Thesis co-op	
W27	5	Academic term	 Co-op work report due 30 days after your work term Thesis research 	
S27	6	Academic term (if needed)	Thesis research	

WIL 601

Students interested in co-op will need to take the mandatory course:

WIL601: Career Foundations for Work-Integrated Learning.



You will learn the tools, strategies and resources to effectively prepare for your upcoming WIL experiences

- Critically reflect on your career values and goals.
- Identify, evaluate and articulate your current skillsets and the competencies you are developing in graduate school.
- Learn strategies for networking and the job search process, and how to cultivate meaningful career development during and after your WIL experience.
- Connect with <u>Centre for Career Development (CCD)</u> advisors through synchronous sessions.

6. KEY REMINDERS

Getting set-up at UW: A checklist

- ☐ Regularly check your UWaterloo email
 - Your email was set-up when you matriculated. Ensure you use your @uwaterloo.ca email (not @edu.uwaterloo.ca) for all updates!
- □ Update your local mailing address in Quest as soon as possible

The university uses this as your primary mailing address. Inter-university mail can be picked up in the mailboxes in DC 2583.

- □ Pick up your keys/fobs for your office
 - Pick up your fobs from CS Admin Office, and keys from Key Control GSC 1101 (if you need a key, you'll have received an alert by email from Key Control)
- □ Complete the "Confidentiality Agreement" on LEARN
- ☐ Read the Orientation summary email

In particular, review the 'Important Links for Graduate Students' that will be included in your summary email. They are a great resource!



Further reminders for International Students

- 1. Remember to get your SIN as soon as possible! In order to get paid for TA, you need to provide your SIN Number to Human Resources. This is completed as part of your onboarding through Workday.
- 2. The Student Success Office is your go-to for student permit/immigration questions

You can contact an <u>immigration consultant</u>, visit them in-person at South Campus Hall (2nd floor), or email them at <u>success@uwaterloo.ca</u>

- 3. You are automatically enrolled in the UHIP health plan International Graduate students are charged the UHIP fee during every term, including Inactive terms, to ensure continuous coverage for the duration of your program. If you have a family member here they MUST register for UHIP within 30 days!
- 4. Review our <u>International Student resources</u>
 In particular, the <u>International Student Guide</u> can be helpful to prepare for your studies



Tips for a successful program at UW

- 1. Read the bi-weekly CS Grad Office email
 Deadlines and updates are communicated in this email. Don't miss it!
- 2. Always complete forms electronically
- 3. When in doubt, ask us! Please come to our drop-in hours, or send us an email we're happy to help!

Your graduate program is your responsibility.

Please stay informed on processes and requirements. Feel free to ask your supervisor/coordinator for clarification at any time.



Key contacts

Reason	Email	Contact	Drop-In office hours (Spring '25)
General Inquiries	cs-gradoffice@uwaterloo.ca	Co-op Student	Tu, W, Th 10 – 11:30am
GRS Funding	cfinance@uwaterloo.ca	Nadine WitmerZinger/ Cecilia Martin-Grant	Tu, W 10 – 11:30am
TA Inquiries/Extensions	csgtaschol@uwaterloo.ca	Makenna Ryder	W, Th 10 – 11:30am
Scholarships/Manager	cmanager@uwaterloo.ca	Denise Shantz	Tu, W, Th 10 – 11:30am
PhD Program	csphd@uwaterloo.ca	Nadine WitmerZinger	Tu, W 10 – 11:30am
MMath Program	csmaster@uwaterloo.ca	Cecilia Martin-Grant	Tu, W 10 – 11:30am
Course scheduling	cgschedule@uwaterloo.ca	Amy Todd	W, Th 10 – 11:30am

Please email any of us anytime. We will reply via email and book an MS Teams or in person meeting. We are here to help you!



WATERLOO



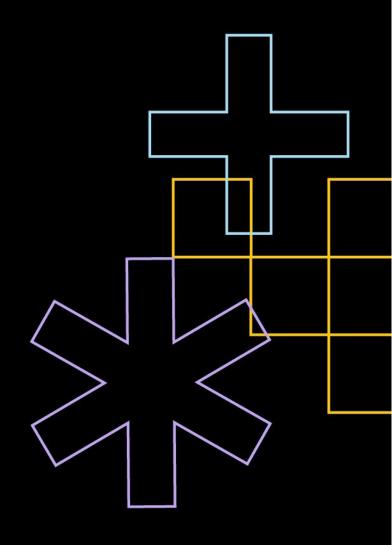
DAVID R. CHERITON SCHOOL OF COMPUTER SCIENCE

Computer Science Grad Students & the Library

4/23/2025

Rebecca Hutchinson, Computer Science Librarian

r3hutchi@uwaterloo.ca



Personalized research support

Virtual and in-person consultations available

Designed for your specific research needs



Personalized research support

For all stages of the research process. For example, here are some recent questions from other CS grad students:



I found a reference to a paper from the 1978 International Conference on Parallel Programming, but I can't locate the full text anywhere. Are we able to get a copy?



I'm working on a literature review on improving machine learning systems for medical image analysis, but I'm worried I've missed some important research. Can you help me?



My .bib file is getting long, is there a more efficient way to track and manage BibTeX and papers?



How does Zotero work with Overleaf?



Can I use this image from this published article in my thesis?



I haven't heard of this conference before, is it predatory?



The place I'm publishing requires a DOI for my supporting data, how do I get one of those?



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Computer science research guide



) The best place to get started with your research Bookmark it now 🏋

Computer science research guide



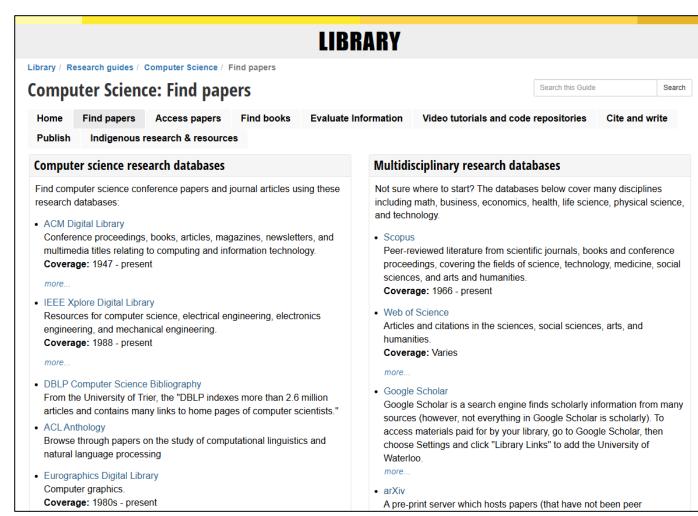
The <u>computer science research</u> <u>guide</u> provides access to paid-for resources

- Brings important 'how-to' information together in one place
- It also has my contact info



Tip! Connect Google Scholar to the Library for easy access to papers behind paywalls

> Go to Google Scholar's settings, then choose Settings and click "Library Links" to add the University of Waterloo



Access to library materials

Waterloo uses IP authentication to ensure you're able to access what we pay for (when off campus you might not get access through Google/ a publisher's website – use library resources instead)



Access to library materials



Access to online journals, articles, conference papers, and ebooks

• Start at the <u>Computer Science research guide</u> or the <u>Library's website</u> for access to full text (you will be prompted to log in with your Waterloo email address)



Print books

- Request a print book through the <u>Library's catalogue</u>
- Pick it up from the Help Desk or have it mailed to you (within Canada)



More help

Library Chat and FAQs



Library spaces

You are welcome in any library on campus



Library spaces



Davis Centre Library

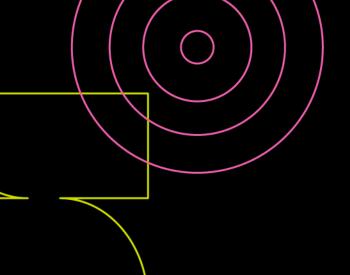
- 8am-11pm Monday-Friday
- 11am-11pm Saturday & Sunday
- Computer science collection
- Computers, printing, photocopying, and scanning
- Individual study space
- Group study space
- IST Help Desk
- Library Help Desk



<u>Dana Porter and other libraries on campus</u>







When you're ready to get started Leeelee

Visit the <u>Computer Science research guide</u>

<u>Book a meeting or email me: r3hutchi@uwaterloo.ca</u>

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