Summer Undergraduate Data Sciences (SUDS) Research Opportunity
January 10, 2023

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datasciences.utoronto.ca
We wish to acknowledge this land on which the University of Toronto operates. For thousands of years it has been the traditional land of the Huron-Wendat, the Seneca, and the Mississaugas of the Credit. Today, this meeting place is still the home to many Indigenous people from across Turtle Island and we are grateful to have the opportunity to work on this land.
DSI SUDS Info Session Guideline

• Presentation slides and recordings will be shared
• Please remain muted.
• Ask questions in the Slido.
• This is a safe space. We require all participants to show respect to each other. Non-compliance will result in removal from the event.

Access Slido here (QR Code)

Or visit slido.com and join with code #1479486
TODAY’S Outline

- What is the DSI?
- Inspiration & Opportunities
- Summer Research? Why DSI?
- Application Steps and Process
- Eligibility, requirement, reference, etc.
- Application tips from PIs and former SUDS Scholars
- Q & A

Visit Slido.com and join with code #1479486 to leave your questions.
About Us

A research and training hub for data science activity at the University of Toronto.

Mission: To accelerate the impact of data sciences across disciplines to address pressing societal questions and drive positive social change.

Visit Slido.com and join with code #1479486 to leave your questions.
DSI SUDS Research Program

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Undergraduate students interested in data science have an exciting opportunity to:

• Engage in hands-on research and valuable experience to help you apply to graduate or professional schools
• Develop more advanced skills
  • Present your research
• Meet DSI researchers and students from a range of disciplines
• Engage in social, academic, and professional development opportunities

Faculty members and principal investigators with summer research opportunities focused on data sciences methodology or applications in any research area. Projects can include any aspect of basic, applied, or clinical research. DSI provides $7,200 for 12-weeks during May-mid-August 2023. (Supervisors can top up)

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In Summer 2022,
We welcomed 35 SUDS Scholars from across University of Toronto and Canadian universities

Scan to read their stories:
A summer of learning, fun and community for 2022 DSI SUDS Scholars

Visit Slido.com and join with code #1479486 to leave your questions
Apply to Be a DSI SUDS Scholar!
DSI will support and fund up to 25 students for 2023.

Student eligibility:

- Registered as a full-time student in a bachelor's degree or professional undergraduate degree program at a Canadian university/college (at the time of application)
- Canadian citizen, permanent resident of Canada, or foreign student with valid student visa for the full summer.
- We do not have a required minimum GPA for the SUDS program; however, we recommend minimum GPA of 3.3/4.0 for applicants as the program is competitive.
- DSI is strongly committed to diversity within its community and especially welcomes applications from racialized persons / persons of colour, women, Indigenous / Aboriginal People of North America, persons with disabilities, LGBTQ2S+ persons, and others who may contribute to the further diversification of ideas.

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How will it work?

1. Supervisors who have one or more position available for a summer student submit their research opportunity. Supervisors list specific skills they are looking for the SUDS student.

2. DSI reviews the proposed opportunities. The approved list of research opportunity descriptions and supervisors are posted on the DSI website. Interested students apply and rank their top 3 choices.

3. The DSI office reviews the student applications for completeness, eligibility, matching of skill set, and forwards student applications to the supervisor for selection and approval.

4. Students engage in their data science research and, in addition, the full SUDS student cohort across all research areas are provided with data sciences networking, academic and professional development opportunities.

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What to expect during your summer position as a DSI SUDS Scholar?

• The funding is meant to support the project from May to mid-August. Time commitment to the SUDS program is full-time equivalent.
  • Start dates and terms of work are flexible and should be decided between you and your supervisor

• In person, virtual and hybrid positions are available depending on the research, project, and preferences of you and your supervisor

• In addition to your research during the weeks, you’ll have the opportunity to attend data science skills and professional development workshops – you must attend at least 75% of the sessions to complete your SUDS program

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Summer Undergraduate Data Sciences Research Experience @ DSI

Providing opportunities for a research experience and data sciences approaches to research in various fields

- Research opportunities
- Data Science Skills Day: Practical skills in Unix Shell, Python, R, SQL, advanced topics, etc.
- Professional Development: Applying for grad school, creating poster, visualizations, research software tools, methodologies
- Data Science @ Work Series: Data Science in real world practices, case studies, etc.
- SUDS Scholars presenting your research projects at SUDS Research Day
- And more

Scan to view the 2022 DSI SUDS Cohort Activities

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Research Opportunities

SUDS research opportunities are focused on data sciences methodology applications in any research area.

Research opportunities can include any aspect of basic, applied, or clinical research.

There are a wide range of proposals in various disciplines:

- Life Sciences
- Physical Sciences
- Social Sciences
- Humanities

Image: Anthony McCanny: The Data Science of a Satisfying, Purposeful, and Engaging life
Supervisor: Prof. Felix Cheung, Psychology, Faculty of Arts & Science, UofT

Scan to view the 2023 DSI SUDS Opportunities

Visit Slido.com and join with code #1479486 to leave your questions.
Application Process

• Student applications for SUDS opportunities are submitted via the DSI Good Grants application portal.
  • Click on the link above or scan the QR code

• Register an account and select “Start Application” for “SUDS Student”

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Application Process

• The application is divided into tabs; each tab includes a set of instructions and fields to fill out. These instructions are also highlighted below.
Application Process: Tab 1 – Start Here

• Competition
  • SUDS Student Opportunities Program

• Application name
  • Your name – will be auto filled

• Go to “Save + next”
Application Process:
Tab 2 – Applicant Information

• Personal information

• Go to “Save + next”
Tab 3 – Statement of Intent

• Student Statement (maximum 200 words): summarize your suitability for the SUDS program and your training goals.
  • Please describe why you would be an ideal candidate for SUDS.

• Go to “Save + next”
Tab 4 – Supporting Documentation

• Upload your resume or CV in PDF format.

• Upload your unofficial transcript(s) for initial review. If you have multiple transcripts, please save them in a single PDF file.

• Make sure you will be arranging the official transcript(s) for your SUDS application.

• Go to “Save + next”
Tab 5 – Referee Contact

• Contact information for an academic reference who will fill out the form.

• We recommend that you notify your referee in advance of submitting your application, ensuring you can submit their email address as part of your application.

• Go to “Save + next” to Submit
Ranking the Opportunities

List of Projects

Please select your top three preferences from the list below. Drag your three selections from the full list into the second column in order of preference.

- A Climate Downscaling Workflow for Engineering and Climate Impacts Analysis: UTDW
- A Comparison of Missing Data Methods for Clinical Trials
- A website for large-scale data collection on social, moral, and political attitudes
- Abnormal brain cell activity in a mouse model of Alzheimer's disease
- Advanced data processing of Ontario Laboratory Information System
- Algorithmic (Un)Fairness in

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After Submission

Once you have submitted your application on or before January 26, the following things occur:

1. **Rank the Opportunities**: You will receive a confirmation email that includes a link to rank your top 3 SUDS research opportunity choices.

2. **Demographic Survey**: You will receive a confirmation email that includes a link to a Demographic Survey. When filling it out you have the option to select “Prefer not to answer” for all questions.

3. **Reference form**: The Referee indicated on the tab “Referee Contact” will receive an email requesting that they log into Good Grants to fill out the reference form.

Visit [Slido.com](https://slido.com) and join with code #1479486 to leave your questions.
Advice from a DSI SUDS Supervisor: Application Materials

- Communicate your skill sets in your application materials based on your understanding of the “research opportunity description” and “skills required” sections
Important Dates

• The deadline for student applications is January 26, 2023.
• The deadline for the Reference Form and your Demographic Survey is February 2, 2023, 23:59 ET.
• Students will be notified in early March.

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Additional FAQs, Advice and Resources
Frequently Asked Questions

I am an international student studying in Canada. Can I apply for SUDS?
Yes. International students are eligible for the SUDS program; however, you must be studying in a Canadian university with a valid study permit throughout the summer.

I am a second entry PharmD in my first year. Can I apply for SUDS?
Yes. Undergraduate second entry students – e.g., law, medicine, nursing; are eligible for the DSI SUDS Program.

I am not majoring in data science/statistics, can I apply for SUDS?
Yes. There is no program requirement as a prerequisite to the SUDS program. However, you should have the skills that are required for the opportunity.

What makes a strong candidate?
Emphasize your experience and/or skills you have can contribute to the project(s). Demonstrate academic and/or research excellence and high potential for success in their chosen fields.

Should applicants already have strong background in data science, or will strong computational skills and research potential suffice?
This depends on the proposed project and research environment. The data science skills of the applicant should align well with the proposed project.
Frequently Asked Questions

I am a visiting student, can I apply?
Depends. If you are a visiting student from other countries, you will not be eligible since your degree is not with a Canadian university. If you are a student with a Canadian university, but visiting other universities, you can apply for SUDS.

I am in my last semester of my undergraduate degree, can I apply?
Yes. At the time of application, you can be in your first year, or last year in you bachelor’s degree – you can be at all stages and experience levels as an undergraduate student.

I am a graduate student with a completed undergraduate degree, can I apply for SUDS?
No. However, the DSI has other opportunities and grants, such as doctoral and postdoctoral fellowship. Scan to view other funding programs:

How many reference do I need? Who can be my referee?
The SUDS application requires one academic reference. It can be your course professor, lab PI, or research supervisor.

Does attending the SUDS program cost any fees?
No. Instead, $7,200 CAD at minimum provided by the Data Sciences Institute to the supervisor for the student. Any supplement above this level may be set at the supervisor’s or department’s discretion.

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Frequently Asked Questions

What areas of research are available for SUDS?
Research are from any area—social sciences, humanities, life and physical sciences. Research can include any aspect of basic, applied, or clinical research.

Scan to read their stories: A summer of learning, fun and community for 2022 DSI SUDS Scholars

What are your examples of previously SUDS research?

Do you have examples of previously SUDS research?
Scan to view:

Please define what data sciences encompasses.
With increasingly larger and more complex data comes the challenge of collecting, manipulating, storing, visualizing and extracting information from the data, in reproducible, fair and ethical ways. (See DSI website)

I currently hold another summer opportunity. Can I apply for SUDS?
As the setting of the SUDS program is a full-time commitment, successful student applicants cannot accept more than one summer studentship regardless of the funding source.

Is the workshop (cohort programs) part of the commitment?
Yes. To complete the SUDS program, all selected summer students must attend a minimum of 75% of the weekly seminars and will be invited to present at the SUDS Showcase Day.

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Advice from a Past DSI SUDS Scholar: How did I choose my opportunity?

Lauren Gill, SUDS Scholar 2022

Project: *Data Science for White Shark Conservation*

Best Presentation Awarded in SUDS Research Day 2022

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More Advice from DSI Trainees

"Unleash your curiosity and spark conversations with your supervisor and fellow SUDS scholars. You will benefit incredibly from the cohort programming. I've learned and enjoyed so much about the professional and human sides of academia."
- Ruisi Rachael Li, SUDS Scholar 2022

"Relevant past experience can be important but it does not limit yourself from exploring new fields! When applying for a project in the area that’s new to you, highlighting genuine interest and/or any transferable skills from past may be helpful!"
- Grace Yu, SUDS Scholar 2022

"I found that the skill building workshops (intro to R, python, Bash) were extremely helpful and I recommend committing to these as much as possible!"
- Lauren Gill, SUDS Scholar 2022, Best Presentation Awarded

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THANK YOU

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