Jarrett D. Phillips, Ph.D.

School of Computer Science
Department of Integrative Biology
One Health Institute
University of Guelph
jphill01@uoguelph.ca
Faculty Profile: Jarrett Phillips
GitHub: jphill01

RESEARCH AREAS

Computational statistics · Data science · Machine learning · Statistical modelling · Biodiversity informatics · eDNA and DNA barcoding

ACADEMIC APPOINTMENTS

Adjunct Professor, School of Computer Science 2023–Present
University of Guelph

Affiliated Faculty, One Health Institute 2026
University of Guelph

EDUCATION

Ph.D. in Computational Sciences, University of Guelph 2022
Co-Advisors: Dr. Daniel Gillis and Dr. Robert Hanner
Advisory Committee Members: Dr. Deborah Stacey and Dr. Graham Taylor
Dissertation: A Novel Statistical Framework for Assessment of Intraspecific Haplotype Sampling Sufficiency: Implications for DNA Barcode Gap Estimation

Master of Bioinformatics, University of Guelph 2014
Co-Advisors: Dr. Robert Hanner and Dr. Daniel Ashlock
Major Paper: Assessing DNA Barcode Haplotype Sampling Diversity in the Ray-finned Fishes (Chordata: Actinopterygii)

BSc. (Hons.) in Biological Science, University of Guelph 2013
Coursework in bioinformatics, ecology, evolutionary biology, comparative animal physiology, genetics, mathematics, and statistics

RESEARCH EXPERIENCE

Postdoctoral Fellow 2023–Present
University of Guelph
GBADs Informatics Team
Stacey Lab, School of Computer Science
Supervisor: Dr. Deborah Stacey

Postdoctoral Fellow 2023–Present
University of Guelph
Gillis Lab, School of Computer Science
Hanner Lab, Department of Integrative Biology
Supervisors: Drs. Daniel Gillis and Robert Hanner

Postdoctoral Fellow 2022
University of Guelph
Hanner Lab, Department of Integrative Biology
Supervisor: Dr. Robert Hanner

RESEARCH FUNDING

Grants

Completed

2. **Canada First Research Excellence Fund (CFREF) Food From Thought Advancing Research Impact Fund (ARIF) – Livestock Innovation Grant** 2024
University of Guelph $40,000 CAD
A Modular Decision- and Policy-Making Tool for Global Livestock Disease Burden Assessment
Role: Co-applicant

1. **Canada First Research Excellence Fund (CFREF) Food From Thought Advancing Research Impact (ARIF) Fund** 2023
University of Guelph $30,000 CAD
Forecasting Seafood Fraud Occurrence in the Supply Chain Within Major Canadian Cities Using Bayesian Hierarchical Binary Logistic Time-Series Regression Modeling
Role: HQP

Submitted

3. **NSERC Discovery Grant** 2026
University of Guelph Amount $TBD CAD
Computational Statistical Methods for Specimen Sampling Sufficiency and Species Genetic Diversity Assessment
Role: Principal Investigator

2. **NSERC Alliance Society Grant** 2026
University of Guelph $2.5 million CAD
AI-Driven Biodiversity Restoration: Scalable Solutions for Ecosystem Monitoring and Conservation
Role: Collaborator

1. **NSERC CREATE Grant** 2026
University of Guelph $1.65 million CAD
AI-Driven Training of Next-Generation Conservation Scientists
Role: Collaborator

To be Submitted

1. **Advancing Research Impact Fund: "Quick Wins" Knowledge Mobilization Fund** 2026
University of Guelph $20,000 CAD
GBADs ModelBuilder as a Tool to Teach Livestock Population Dynamics and Disease Burden Risk Estimation
Role: Co-applicant

Awards

4. **SoCS Travel Grant** 2019
University of Guelph $1,000 CAD

3. **Arthur D. Latornell Graduate Travel Grant** 2019
University of Guelph $500 CAD

2. **Graduate Teaching Assistantships** 2016–2020
University of Guelph $35,000 CAD

1. **Graduate Research Assistantships** 2017–2019
University of Guelph $11,000 CAD

Scholarships

2. **CPES Graduate Dean's Scholarship** 2017
University of Guelph $3,500 CAD

1. **CPES Graduate Excellence Entrance (GEE) Scholarship** 2016
University of Guelph $30,000 CAD

REFEREED WORK

Publication record: 9 peer-reviewed journal articles (7 first-author, 2 co-author) and 2 book chapters (1 first-author, 1 co-author), plus 3 first-author manuscripts in preprint or to be submitted. Senior (last) author on 2 student-led manuscripts

***** Indicates students under my direct mentorship/supervision
****** Indicates students under my co-mentorship/co-supervision

Journal Articles

Published or Accepted

9. **Phillips, J.D.** and *De Vuono-Fraser, F.A. (2026). Swimming in deep uncertainty: How proper statistical modelling can help expose seafood product mislabeling. *CHANCE*, 39(3): 48-56. DOI: 10.1080/09332480.2026.2725526

8. **Phillips, J.D.** and *De Vuono-Fraser, F.A. (2026). Statistical modelling of seafood fraud highlights uncertainties in products from Metro Vancouver, British Columbia, Canada: Revisiting Hu *et al.* (2018). *Journal of Food Science*, 91: e71201. DOI: 10.1111/1750-3841.71201

7. Raymond, K., Sobkowich, K.E., **Phillips, J.D.**, Nguyen, L., McKechnie, I., Mohideen, R.N., Fitzjohn, W., Szurkowski, M., Davidson, J., Rushton, J., Stacey, D.A., and Bernardo, T.M. (2024). GBADs informatics strategy: User-centric tools, data quality, and model interoperability. *WOAH Scientific and Technical Review*, 43: 96–107. DOI: 10.20506/rst.43.3522.

6. **Phillips, J.D.**, Athey, T.B.T., McNicholas, P.D., and Hanner, R.H. (2023). VLF: An R package for the analysis of very low frequency variants in DNA sequences. *Biodiversity Data Journal*, 11: e96480. DOI: 10.3897/BDJ.11.e96480.

5. **Phillips, J.D.**, Gillis, D.J., and Hanner, R.H. (2022). Lack of statistical rigor in DNA barcoding likely invalidates the presence of a true species' barcode gap. *Frontiers in Ecology and Evolution*, 10: 859099. DOI: 10.3389/fevo.2022.859099.

4. D'Ercole, J., Dincă, V., Opler, P.A., Kondla, N.G., Schmidt, C.B., **Phillips, J.D.**, Robbins, R., Burns, J.M., Miller, S.E., Grishin, N., Zakharov, E.V., deWaard, J.R., Ratnasingham, S., and Hebert, P.D.N. (2021). A DNA barcode library for the butterflies of North America. *PeerJ*, 9: e11157. DOI: 10.7717/peerj.11157.

3. **Phillips, J.D.**, *French, S.H., Hanner, R.H., and Gillis, D.J. (2020). HACSim: An R package to estimate intraspecific sample sizes for genetic diversity assessment using haplotype accumulation curves. *PeerJ Computer Science*, 6(192): 1–37. DOI: 10.7717/peerj-cs.243. *Top 5 most viewed article in category "Optimization Theory and Computation"*.

2. **Phillips, J.D.**, Gillis, D.J., and Hanner, R.H. (2019). Incomplete estimates of genetic diversity within species: Implications for DNA barcoding. *Ecology and Evolution*, 9(5): 2996–3010. DOI: 10.1002/ece3.4757.

1. **Phillips, J.D.**, Gwiazdowski, R.A., Ashlock, D., and Hanner, R. (2015). An exploration of sufficient sampling effort to describe intraspecific DNA barcode haplotype diversity: examples from the ray-finned fishes (Chordata: Actinopterygii). *DNA Barcodes*, 3: 66–73. DOI: 10.1515/dna-2015-0008.

Preprints

3. *Toth, N., Antonie, L., Hanner, R.H., Gillis, D.J., and **Phillips, J.D.** (2026). Mining association rules for targeted spatiotemporal aquatic environmental DNA (eDNA) sampling. bioRxiv. DOI: 10.64898/2026.09.16.752056.
2. **Phillips, J.D.**, Hubert, N., and Hanner, R.H. (2025). A Bayesian coalescent model of the DNA barcode gap. Authorea. DOI: 10.22541/au.174073683.37707806/v1
1. **Phillips, J.D.** and *De Vuono-Fraser, F.A. (2024). Statistical modelling of seafood fraud in the Canadian supply chain. bioRxiv. DOI: 10.1101/2024.02.05.578947.

Submitted or Under Revision

1. *Toth, N., Antonie, L., Hanner, R.H., Gillis, D.J., and **Phillips, J.D.** Mining association rules for targeted spatiotemporal aquatic environmental DNA (eDNA) sampling. Submitted to *Oikos*.

To Be Submitted

1. **Phillips, J.D.**, Hubert, N., and Hanner, R.H. A Bayesian-informed coalescent model of the DNA barcode gap. Targeted to *Methods in Ecology and Evolution*.

In Preparation (Selected)

3. *Cui, R.C., Yodzis, M.P., and **Phillips, J.D.** The influence of wholesaler fraud and consumer perception on IUU fishing in a model of the seafood supply chain. Targeted to *Proceedings of the National Academy of Sciences*.
2. Diao, J., Elliott, T.A., **Phillips, J.D.**, You, J., and Adamowicz, S.J. Benchmarking imputation methods for insect trait data across missingness mechanisms and trait types. Targeted to *Methods in Ecology and Evolution*.
1. D'Ercole, J., Dapporto, L., **Phillips, J.D.**, Dincă, V.E., Vila, R., Talavera, G., and Hebert, P.D.N. Macrogenetics of North American butterflies – The impact of Quaternary climatic fluctuations. Targeted to *Proceedings of the National Academy of Sciences* .

Book Chapters

Published or Accepted

2. **Phillips, J.D.**, Griswold, C.K., Young, R.G., Hubert, N., and Hanner, R.H. (2024). A Measure of the DNA Barcode Gap for Applied and Basic Research. In: DeSalle, R. (eds) DNA Barcoding. Methods in Molecular Biology, vol 2744. Humana, New York, NY. URL: https://link.springer.com/protocol/10.1007/978-1-0716-3581-0_24
1. Hubert, N., **Phillips, J.D.**, and Hanner, R.H. (2024). Delimiting Species with Single-Locus DNA Sequences. In: DeSalle, R. (eds) DNA Barcoding. Methods in Molecular Biology, vol 2744. Humana, New York, NY. URL: https://link.springer.com/protocol/10.1007/978-1-0716-3581-0_3

Submitted or Under Revision

1. *Cui, R.C., Yodzis, M.P., and **Phillips, J.D.** Modelling the Interplay between IUU Fishing, Wholesaler Fraud, and Consumer Awareness in the Seafood Supply Chain. *VII AMMCS International Conference*, Springer Nature.

NON-REFEREED WORK

Ph.D. Thesis

Phillips, J.D. (2022). A Novel Statistical Framework for Assessment of Intraspecific Haplotype Sampling Sufficiency: Implications for DNA Barcode Gap Estimation. University of Guelph Atrium.
URL: https://atrium.lib.uoguelph.ca/items/8addfcc5-f21c-4691-89b7-c4db051892eb

* Indicates students under my direct mentorship/supervision

14. *Cui, R.C. and **Phillips, J.D.** (2026). Student-contributed poster for University of Guelph March Open House
13. *Toth, N. and **Phillips, J.D.** (2026). Student-contributed poster for University of Guelph March Open House
12. *Cui, R.C. and **Phillips, J.D.** (2025). The Importance in Design as a Computer Scientist. Student-contributed SoCS Show and Tell video URL: https://github.com/RichaCui70/Dynamics-between-Seafood-Fraudsters-and-Buyers/tree/main/misc_resources
11. **Phillips, J.D.**, *De Vuono-Fraser, F.A., Gillis, D.J., and Hanner, R.H. (2024). Statistical modelling of seafood fraud. Whiteboard explainer video. URL: https://www.youtube.com/watch?v=4jU8cU8M70U
10. *Toth, N. and **Phillips, J.D.** (2024). eDNA Collection Gets a Tech Update. Student-contributed CEPS Research Highlights article. URL: https://www.uoguelph.ca/ceps/news/2024/07/edna-collection-gets-tech-upgrade
9. *Toth, N. and **Phillips, J.D.** (2024). Unravelling eDNA with Association Rule Mining. Contributed guest post to the Science Borealis-syndicated blog of Dr. Daniel Gillis. URL: https://danielgillis.wordpress.com/2024/08/15/unravelling-edna-with-association-rule-mining/
8. **Phillips, J.D.** (2024). Summer URA Position. Contributed guest post to the Science Borealis-syndicated blog of Dr. Daniel Gillis. URL: https://danielgillis.wordpress.com/2024/02/07/summer-ura-position-2/
7. **Phillips, J.D.** (2022). Mind the Gap – The DNA Barcode Gap, That Is. Contributed CEPS Research Highlights article. URL: https://www.uoguelph.ca/ceps/news/2022/08/mind-gap-%E2%80%93-dna-barcode-gap
6. **Phillips, J.D.** (2020). Barcode Cracking. Contributed CEPS Research Highlights article. URL: https://www.uoguelph.ca/ceps/news/2020/02/barcode-cracking
5. **Phillips, J.D.** (2020). Protecting Biodiversity Through the Lens of Genetic Diversity. Contributed guest post to the Science Borealis-syndicated blog of Dr. Daniel Gillis. URL: https://danielgillis.wordpress.com/2020/01/30/protecting-biodiversity-through-the-lens-of-genetic-diversity/
4. **Phillips, J.D.** (2019). IBOL8 and the Midnight Sun. Contributed guest post to the Science Borealis-syndicated blog of Dr. Daniel Gillis. URL: https://danielgillis.wordpress.com/2019/07/02/reflections-ibol8-and-the-midnight-sun/
3. **Phillips, J.D.** (2017). The Big Five and IBOL7. Contributed guest post to the Science Borealis-syndicated blog of Dr. Daniel Gillis. URL: https://danielgillis.wordpress.com/2017/12/06/reflections-the-big-five-and-ibol7/
2. **Phillips, J.D.** (2016). Sample size estimation for DNA barcoding: Are current sampling levels enough? Contributed guest post to the DNA Barcoding Blog of Dr. Dirk Steinke. URL: http://dna-barcoding.blogspot.com/2016/01/guest-post-sample-size-estimation-for.html
1. **Phillips, J.D.** (2016). Sample size estimation for DNA barcoding of ray-finned fishes: Are current sampling levels enough? Contributed newsletter article to the Barcode Bulletin, 7(1). URL: https://journal.lib.uoguelph.ca/index.php/ibol/issue/view/345

CONFERENCE PRESENTATION AND PROCEEDINGS

***** Indicates students under my direct mentorship/supervision

16. **The VII AMMCS International Conference** (student oral presentation) 2026
    Wilfrid Laurier University, Canada
    *Cui, R.C., Yodzis, M.P., and **Phillips, J.D.** · Modelling the Interplay between IUU Fishing, Wholesaler Fraud, and Consumer Awareness in the Seafood Supply Chain

15. **Pathway to Increase Standards and Competency in eDNA Surveys (PISCeS) International Conference** (oral presentation) 2026
    University of Guelph, Canada
    Phillips, J.D. · Association rule mining for targeted spatiotemporal aquatic environmental DNA (eDNA) sampling

14. **Pathway to Increase Standards and Competency in eDNA Surveys (PISCeS) International Conference** (student poster presentation) 2026
    University of Guelph, Canada
    *Toth, N., Antonie, M.L., and **Phillips, J.D.**. · To correct or not to correct?: Assessing the multiple comparisons problem for association rule mining of environmental DNA (eDNA) detection survey datasets

13. **39th Canadian Conference on Artificial Intelligence** (short paper and student poster presentation) 2026
    Simon Fraser University, Canada
    *Toth, N., Antonie, M.L. and **Phillips, J.D.** · To correct or not to correct?: Assessing the multiple comparisons problem for association rule mining of environmental DNA (eDNA) detection survey datasets.

12. **SoCS Undergraduate Summer Project Show and Tell** (student oral presentation) 2025
    University of Guelph, Canada
    *Cui, R.C., Yodzis, M.P., and **Phillips, J.D.** · The Importance in Design as a Computer Scientist

11. **CEPS Undergraduate Student Poster Day** (student poster presentation) 2024
    University of Guelph, Canada
    *Toth N. and **Phillips, J.D.** · Association Rule Mining of eDNA Datasets

10. **CBS Undergraduate Poster Session** (student poster presentation) 2024
    University of Guelph, Canada
    *Toth N. and **Phillips, J.D.** · Association Rule Mining of eDNA Datasets

9. **9th International Barcode of Life Conference** (poster presentation) 2024
    Estação das Docas, Belém, Brazil
    Phillips, J.D. · A Measure of the DNA Barcode Gap for Applied and Basic Research (*abstract accepted, not attended*)

8. **GBADs Informatics Technical Workshop** (oral presentation) 2023
    University of Liverpool, England
    Phillips, J.D. · The GBADs R Package (and Why We Need It!)

7. **CEPS Student Research Day** (student poster presentation) 2023
    University of Guelph, Canada
    *De Vuono-Fraser, F.A. and **Phillips, J.D.** · Estimating Seafood Mislabelling Rates in Canada Using Bayesian Modelling

6. **Pathway to Increase Standards and Competency in eDNA Surveys (PISCeS) International Conference** (poster presentation) 2023
    University of Guelph, Canada
    Phillips, J.D. · Haplotype diversity reveals challenges and opportunities for developing targeted detection assays for *COI* in Canadian freshwater fishes

5. **8th International Barcode of Life Conference** (oral presentation) 2019
NTNU University Museum and Norwegian Biodiversity Information Centre, Norway
Phillips, J.D. · HACSim: Iterative extrapolation of haplotype accumulation curves for assessment of intraspecific COI DNA barcode sampling completeness

4. **Guelph BioMathematics and Statistics (BioM&S) Symposium** 2019
Artificial Intelligence and Machine Learning in Biology (attended)
University of Guelph, Canada

3. **CEPS Undergraduate Student Poster Day** (student poster presentation) 2018
University of Guelph, Canada
*French, S.H. and **Phillips, J.D.** · Estimating Sampling Size Using Haplotype Accumulation Curves and Semiparametric Models

2. **7th International Barcode of Life Conference** (oral presentation) 2017
University of Johannesburg, South Africa
Phillips, J.D. · Intraspecific sample size estimation for DNA barcoding: Are current sampling levels enough?

1. **6th International Barcode of Life Conference** (poster presentation) 2015
University of Guelph, Canada
Phillips, J.D. · An exploration of sufficient sampling effort to describe intraspecific DNA barcode haplotype diversity: examples from the ray-finned fishes (Chordata: Actinopterygii).

Conference Proceedings

Published or Accepted

5. *Toth, N., Antonie, M.L., and **Phillips, J.D.** To correct or not to correct?: Assessing the multiple comparisons problem for association rule mining of environmental DNA (eDNA) detection survey datasets. *39th Canadian Conference on Artificial Intelligence*, **318**: 1012–1019. Short paper and poster.

4. Morey, K., Loeza-Quintana, T., **Phillips, J.**, and Hanner R. (2023). Haplotype diversity reveals challenges and opportunities for developing targeted detection assays for *COI* in Canadian freshwater fishes. Pathway to Increase Standards and Competency in eDNA Surveys (PISCeS) Conference. Poster.

3. **Phillips, J.D.**, Gillis, D., and Hanner, R. (2019). HACSim: Iterative extrapolation of haplotype accumulation curves for assessment of intraspecific COI DNA barcode sampling completeness. Scientific abstracts from the 8th International Barcode of Life Conference, Trondheim, Norway (ed. Torbjørn Ekrem), *Genome*, 62(6): 349–453. Oral presentation.

2. **Phillips, J.D.**, Gillis, D., and Hanner, R. (2017). Intraspecific sample size estimation for DNA barcoding: Are current sampling levels enough? Scientific abstracts from the 7th International Barcode of Life Conference, Johannesburg, South Africa (ed. M. van der Bank), *Genome*, 60(11): 881–1019. Oral presentation.

1. **Phillips, J.D.**, Gwiazdowski, R.A., Ashlock, D., and Hanner, R. (2015). An exploration of sufficient sampling effort to describe intraspecific haplotype diversity in the ray-finned fishes (Chordata: Actinopterygii). Scientific abstracts from the 6th International Barcode of Life Conference, Guelph, ON., Canada (ed. S.J. Adamowicz), *Genome*, 58(5): 163–303. Poster.

SOFTWARE AND COMPUTATIONAL TOOLS

98,000+ software downloads through the Comprehensive R Archive Network (CRAN)

6. **Seafood Fraud Modelling App** · Python web application · URL: https://dynamics-between-seafood-fraudsters-and-buyers.streamlit.app
5. **GBADs ModelBuilder** · R Shiny web application · URL: https://animalhealthmetrics.org/2025/10/14/introduction-to-gbads-new-model-builder-prototype/
4. **RulesTools** · R package · >3000 downloads · DOI: 10.32614/CRAN.package.RulesTools

3. **Frequentist/Bayesian DNA barcode gap coalescent-informed estimators** · R scripts
2. **VLF** (**V**ery **L**ow **F**requency) · R package · >40000 downloads · DOI: 10.32614/CRAN.package.VLF
1. **HACSim** (**H**aplotype **A**ccumulation **C**urve **Sim**ulator) · R package · R Shiny web application · >50000 downloads · DOI: 10.32614/CRAN.package.HACSim

STUDENT SUPERVISION AND MENTORSHIP

Mentored/co-supervised **18 undergraduate and graduate students** across computer science, bioinformatics, statistics, and biology.

* Indicates students under my direct mentorship/supervision
** Indicates students under my co-mentorship/co-supervision

Undergraduate

***Brendan Carl Rosario** 2025
Undergraduate Student Volunteer · Supervised Machine Learning for eDNA spatiotemporal sampling

***Richard Cui** 2025
Summer Undergraduate Research Assistant (URA) · Dynamical modelling of seafood fraud in the supply chain

***Nikolett Toth** 2024–2025
CIS*4900/4910 · Mining association rules for eDNA spatiotemporal sampling

***Nikolett Toth** 2024
Summer Undergraduate Research Assistant (URA) · Mining association rules for eDNA spatiotemporal sampling

***Fynn De Vuono-Fraser** 2024
CIS*4900/4910 · Bayesian modelling of seafood fraud in the Canadian supply chain

***Zaid Al-Gayyali** 2023
Summer Undergraduate Research Assistant (URA) · Seafood Fraud Visualization Tool Shiny app

***Fynn De Vuono-Fraser** 2023
STAT*4600 · Bayesian modelling of seafood fraud in the Canadian supply chain

***Navdeep Singh** 2021
CIS*4900 · HACSim R Shiny web application

***Scarlett Bootsma** 2020–2021
CIS*4900/4910 · HACSim simulation study

****Maya Persram** 2020
Hanner Lab volunteer · R reporting ecological meta-analysis

****Ashley Chen** 2020
Hanner Lab volunteer · R reporting ecological meta-analysis

****Olivia Friesen Kroeker** 2020
Hanner Lab volunteer · R reporting ecological meta-analysis

***Steven French** 2018
CIS*4900/4910 · HACSim R package

****Julia Harvie** 2018–2019
MCB*4500/4510 · Data mining GenBank and BOLD

Graduate

****Nathan Zeinstra** 2024
IBIO*6070 · Bayesian habitat occupancy modelling for sea lamprey detection using eDNA

****Amina Asif** 2022
BINF*6999 · DNA barcode gap analysis of Canadian disease vectors and agricultural pests

****Danielle St. Jean** (*withdrawn*) 2018–2019
MSc. thesis (Mathematics) · DNA barcode sequence classification with machine learning

****Christina Fragel** 2018–2019
BINF*6999 · DNA barcode sequence classification with machine learning

****Jiaojia (Paula) Yu** 2018–2019
BINF*6999 · MDMAPR R Shiny app

****Ankita Bhanderi** 2018
BINF*6999 · Data mining GenBank and BOLD

TEACHING EXPERIENCE

Guest Lecturer 2026
University of Guelph
CIS*4020 – Data Science
Talk title: Association Rule Mining: From Market Baskets to Environmrntal DNA (eDNA)

Course Instructor 2025
University of Guelph
CIS*1910 – Discrete Structures in Computing I

Graduate Teaching Assistant (GTA) 2016–2020
University of Guelph
CIS*3130 – System Modelling and Simulation 2020
CIS*1910 – Discrete Structures in Computing I 2017
CIS*2460 – Modelling of Computer Systems 2016–2019

ACADEMIC SERVICE

6. **Pathway to Increase Standards and Competency in eDNA Surveys (PISCeS) Conference** 2026
University of Guelph
   - Conference organizer and volunteer

5. **39th Canadian Conference on Artificial Intelligence** 2026
Simon Fraser University
   - Program committee reviewer for Long and Short Papers Track

4. **GBADs Informatics Technical Workshop** 2023
University of Liverpool
   - Workshop organizer

3. **Pathway to Increase Standards and Competency in eDNA Surveys (PISCeS) Conference** 2023
University of Guelph
   - Conference organizer and volunteer

2. **School of Computer Science (SoCS) Faculty Search Committee** 2018
University of Guelph
   - Member of hiring panel for Associate Professor in Cybersecurity

1. **School of Computer Science (SoCS) Faculty Search Committee** 2017–2018
University of Guelph
   - Member of hiring panel for 2-year Contractually Limited Assistant Professor in Cybersecurity

ACADEMIC PEER REVIEW SERVICE

Ecology and Evolution, *F1000Research*, *Frontiers in Ecology and Evolution*, *Lifestyle Genomics*, *Methods in Ecology and Evolution*, *Mitochondrial DNA Part A*, *Molecular Biology Reports*, *Molecular Ecology Resources*, *Nature Communications*

VOLUNTEER EXPERIENCE

CCMPS Research Day & Student Poster Presentations 2026
University of Guelph

- Served as judge for undergraduate and graduate student posters

CEPS Student Research Connections Networking Night 2025
University of Guelph

- Connected with undergraduate students for summer URA project recruitment

CIS*3750 Wireframing session 2021–Present
University of Guelph

- Graded students on mobile app prototypes for various community partners using Qualtrics surveys