

David Awosoga, A.Stat

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EDUCATION

University of Waterloo, Waterloo, Ontario
Doctor of Philosophy, Statistics
Supervised by Dr. Samuel Wong. Research interests in sports analytics, spatiotemporal analysis, and Bayesian modelling.
September 2024 - Present
Cumulative GPA: 85.50%

University of Waterloo, Waterloo, Ontario
Master of Mathematics, Data Science
Thesis: "Performance Evaluation of Women's Volleyball Players Using Bayesian Data Analysis"
September 2022 - August 2024
Cumulative GPA: 93.75%

University of Lethbridge, Lethbridge, Alberta
Bachelor of Science, Applied Statistics
Concentration in Economics; Minors in Mathematics and Computer Science
Thesis: "Beyond the Boxscore: Applications of the Four Factors of Basketball in U SPORTS"
September 2018 - April 2022
Cumulative GPA: 3.97/4.0

RELEVANT EXPERIENCE

Canadian Sport Institute Ontario
Performance Data Scientist
Sport Data Scientist - Summer Student
Toronto, Ontario
October 2023 - Present
July 2023 - September 2023

- Support quality assurance for high performance sport data systems, databases, and internal operating procedures.
- Design in-house solutions to analyze output from force plates, motion tracking, and athlete monitoring systems.
- Deliver internal and network-facing professional development workshops and seminars in data literacy and innovation.
- Supervise summer student interns on organizational projects and provide mentorship to colleagues in data science.

Waterloo Warriors Women's Volleyball
Assistant Coach
Scouting and Data Science
Waterloo, Ontario
April 2024 - Present
September 2023 - March 2024

- Automate report generation pipeline to streamline performance assessment process and expedite trend identification.
- Develop interactive dashboards to acquire, analyze, and visualize data from matches, game film, and training sessions.
- Collect live match data and relay in-game findings to coaches and players to inform strategic and tactical adjustments.
- Identify and triage feedback from coaches and players to continuously improve research and development approaches.
- Deliver presentations at high performance volleyball camps and provide job shadowing and internship opportunities.

University of Waterloo Athletics & Recreation Department
Coordinator, Sports Data & Analytics
Waterloo, Ontario
May 2024 - Present

- Lead the vision, strategy, and infrastructure development for novel sports analytics services within the department.
- Advise coaches on integrating new and existing data streams into their operations, such as from third-party vendors.
- Coordinate, mentor, and train 25+ data solutions student volunteers while driving sustainable growth of the group.
- Cultivate collaborations with faculty, academic departments, and campus groups to advance data analytics breadth.

University of Waterloo
Teaching Assistant Level IV
Teaching Assistant Level III
Teaching Assistant Level II
Waterloo, Ontario
September 2025 - Present
January 2025 - August 2025
September 2022 - December 2024

- Deliver in-class lectures, design assessments, host hybrid office hours, monitor online forums, and proctor exams.
- Support classes in probability, computational inference, stochastic simulation methods, applied linear models and business process improvement, spatial data analysis in health research, and introductory sports performance analysis.
- Prepare and present detailed solutions for question sets at tutorial sessions with up to 150 students in attendance.
- Grade and provide informative feedback on assessments, carefully adhering to prescribed deadlines for completion.

Edmonton Stingers, Canadian Elite Basketball League
Analytics and Performance Evaluation
Edmonton, Alberta
May 2022 - August 2022

- Create comprehensive and digestible player and team evaluation reports, leveraging findings from statistical models.
- Present detailed pre-game scouting reports and post-game debriefs to coaches and players to assess performance.
- Attend games and practices to give live analysis on individual and team performance and inform changes in tactics.
- Contribute to discussions with general manager on roster composition, draft strategy, and player salary allocation.

University of Lethbridge
Undergraduate Student Research Assistant, NSERC
Lethbridge, Alberta
May 2020 - August 2020, May 2021 - September 2022

- Implement and run experiments on algorithms for complex network analysis from sources such as SNAP and ColPack.
- Conduct literature reviews for relevant research in community detection and centrality algorithms on sparse graphs.
- Employ bash scripts to automate the documentation of results before performing data analysis to compare trials.
- Take the lead on writing, editing, and organizing findings into camera-ready conference posters and presentations.

SKILLS

- **Relevant Coursework:** Exploratory Data Analysis • Statistical Learning • Visualization • Data-Intensive Distributed Analytics • Introduction to Machine Learning • Advanced Bayesian Computing • Reinforcement Learning
- **General:** Academic Writing • Oral Communication • Organization • Leadership • Collaboration • Problem-Solving
- **Programming and Software:** R • Shiny • AWS • C++ • Spark • SQL • Git/GitHub • APIs • Python • Stan
- **Technical:** Data Engineering • Machine Learning • Package Development • Statistical Consulting • Automation
- **Memberships:** Statistical Society of Canada • Sport Scientist Canada • Society of American Baseball Research

CERTIFICATIONS/ACCREDITATION

- *Associate Statistician (A.Stat)*, Statistical Society of Canada December 2025 - Present
- *Foundations for University Teaching in Statistics and Actuarial Science*, University of Waterloo December 2025
- *Trained Club Coach - Athletics*, National Coaching Certification Program (NCCP) December 2023
- *B1 Certificate*, Diplôme d'études en langue française (DELFI) December 2019

EXTRACURRICULAR ACTIVITIES

- *Mentor*, Women in Mathematics (WiM) Directed Reading/Research Program September 2025 - Present
- *Mentee*, Warriors Athletics & Recreation Black Apprenticeship Coaching (BAC) Program August 2024 - Present
- *Founder*, University of Waterloo Analytics Group for Games and Sports (UWAGGS) October 2023 - Present
- *Founding Member*, Ontario Universities Sports Analytics Coalition (OUSAC) June 2023 - Present
- *Member*, University of Toronto Sports Analytics Student Group (UTSPAN) October 2022 - April 2024
- *Outgoing Chair*, Big Brothers Big Sisters National Youth Mentoring Advisory Council May 2019 - December 2025
- *Head of Analytics*, Lethbridge Pronghorns Men's Basketball September 2021 - December 2022
- *Varsity Athlete*, Lethbridge Pronghorns Track and Field September 2018 - April 2022

VOLUNTEER EXPERIENCE

- *Sprint/Hurdles Coach*, Lethbridge Track and Field Club April 2021 - August 2022
- *Youth Leader*, Love Lethbridge Youth September 2019 - June 2022
- *Teen and In-School Mentor*, Big Brothers Big Sisters of Lethbridge and District September 2015 - May 2022
- *Peer Tutor*, University of Lethbridge September 2018 - May 2022
- *Coach and Official*, Lethbridge Bible Quizzing September 2018 - April 2022

SELECTED PROJECTS

Author of rvolleydata and pyvolleydata

- R and Python packages developed to extract boxscore, play-by-play, and other auxiliary data for teams and players.
- Contains data from Major League Volleyball, League One Volleyball Pro, and Athletes Unlimited Pro Volleyball.

Author of usportsR and usportspy

- R and Python packages developed to extract data from USPORTS, the governing body of university sport in Canada.
- A comprehensive repository with data from 11 official league sports, including soccer, basketball, and wrestling.

Author of ceblR and ceblpy

- R and Python packages to extract data from the Canadian Elite Basketball League for analysis and visualization.
- Contains boxscore, play-by-play, coaches, officials, schedule, and results data, updated nightly using GitHub Actions.

Contributor to datavalley

- An R package for reading volleyball scouting files collected from commercial software programs such as DataVolley.
- Resolved multiple bugs and introduced `remap_player_info()` for comprehensive player information remapping.

Honorable Mention at the Statistical Society of Canada 2023 Case Studies in Data Analysis Competition

- Utilized time series analysis to explore the present and potential impacts of climate change on Canada's economy.
- Leverage parallelism on multi-core machinery to improve computational performance capabilities of utilized models.

Graduate Division Champion at the 2023 SportsMEDIA Technology (SMT) Data Challenge

- Created a metric using tracking data to quantify a baseball fielder's catching ability on assisted put-out attempts.
- Gave an oral presentation explaining the geometric and statistical approaches used to compute expected catch rate.

Two-Time Finalist at the Linköping Hockey Analytics Conference Student Competition

- (**2024**): Analyzed possessions from offensive event-level to categorize teams based on their offensive-zone play style.
- (**2023**): Used a probabilistic framework to compare defensive pressure techniques, delivered in an oral presentation.

Practical Software Development (CPSC 2720) Final Project

- Implement three text-based card games in C++ with a dynamic user interface and single- and multi-player options.
- Utilize design patterns, version control, unit tests, and code coverage checks for quality assurance and documentation.

SELECTED PRESENTATIONS

- Du, R., Chow, M., and **Awosoga, D.** (2025) “rvolleydata and pyvolleydata: Serving up Professional Women’s Volleyball Data”, [Poster Presentation] Carnegie Mellon Sports Analytics Conference (CMSAC 2025). Pittsburgh, Pennsylvania, United States.
- **Awosoga, D.**, Liu, Y., and Wong, S.W.K. (2025) “Clustering Aging Curves to Classify Athlete Development and Predict Career Trajectories”, [Poster Presentation] The New England Symposium on Statistics in Sports (NESSIS). Cambridge, Massachusetts, United States.
- **Awosoga, D.** (2025) “Applied Bayesian Reinforcement Learning for Credit Assignment in Volleyball”, [Oral Presentation] Waterloo Statistics and Actuarial Science Student Seminar. Waterloo, Ontario, Canada.
- Phillips, S., Silva, R., and **Awosoga, D.** (2024) “usportsR and usportspy: Breaking Ground in Canadian University Sports Data Access”, [Poster Presentation] Carnegie Mellon Sports Analytics Conference (CMSAC 2024). Pittsburgh, Pennsylvania, United States.
- **Awosoga, D.** and Chow, M. (2024) “A Matter of Survival: Using Censored Regression to Analyze Athlete Peak Performances”, [Poster Presentation] The Cascadia Symposium on Statistics in Sports (CASSIS). Vancouver, British Columbia, Canada.
- **Awosoga, D.** (2024) “Investigating Player Contribution in Volleyball Using Bayesian Spatiotemporal Data Analysis”, [Oral Presentation]
 - Ontario Graduate Mathematics Conference (OGMC 2024). Waterloo, Ontario, Canada
 - Statistical Society of Canada 2024 Annual Meeting (SSC 2024). St. John’s, Newfoundland, Canada
- Nguyen, M.C, **Awosoga, D.** and Ghaffarteherani, A. (2024), “Using Time Series Analysis Models to Explore the Present and Potential Impacts of Climate Change on Canada’s Economy”, [Poster Presentation] Waterloo Climate Institute Student Climate Con (Student Climate Con 2024). Waterloo, Ontario, Canada.
- **Awosoga, D.** (2022) “Beyond the Boxscore: Applying Team and Individual Performance Evaluation Metrics to U SPORTS Basketball”, [Oral Presentation] University of Waterloo Student Conference in Statistics, Actuarial Science, and Finance (WatSSAF 2022). Waterloo, Ontario, Canada.

RESEARCH PUBLICATIONS

- Zaidi, A.R, Lodhi, F., Wu, X., Cao, R., and **Awosoga, D.** (2024), “Clustering SHL Teams Using Offensive Zone Metrics”, [Full Paper Presentation] *Linköping Hockey Analytics Conference (LINHAC 2024)*. pp 123-127. Linköping, Sweden, Europe (Hybrid).
- **Awosoga, D.** and Chow, M (2024), “Peaks and Primes: Do athletes get one shot at glory?”, [Journal Article] *Significance* Volume 21, Issue 3, July 2024, Pages 6-9
- **Awosoga, D.**, Cui, J., Li, A., Majumdar, J., and Wang, J. (2023), “Comparing Defensive Pressures Using Possession Retention Probability and Expected Goals”, [Full Paper Presentation] *Linköping Hockey Analytics Conference (LINHAC 2023)*, pp. 95-99. Linköping, Sweden, Europe (Hybrid).
- Abdullah, W.M, **Awosoga, D.**, and Hossain, S. (2022), “Efficient Calculation of Triangle Centrality in Big Data Networks”, [Full Paper Presentation] *IEEE High Performance Extreme Computing Conference (IEEE-HPEC 2022)*, Waltham, Massachusetts, United States (Virtual)
- Abdullah, W.M, **Awosoga, D.**, and Hossain, S. (2022), “Intersection Representation of Big Data Networks and Triangle Enumeration”, [Full Paper Presentation] *International Conference on Computational Science (ICCS 2022)* Springer Lecture Notes in Computer Science (LNCS) Part III, volume 13352, pp. 412-424. London, England, UK
- Abdullah, W.M, **Awosoga, D.**, and Hossain, S. (2021), “Intersection Representation of Big Data Networks and Triangle Counting”, [Poster Presentation] *IEEE International Conference on Big Data (Big Data)*, pp. 5836-5838. Orlando, Florida, United States (Virtual).

SELECTED HONORS AND AWARDS

• <u>NSERC Canada Graduate Scholarship - Doctoral</u>	2025 - 2028
• <u>J.O. Hemphill Award</u>	2025
• Sir James Lougheed Award of Distinction	2025
• University of Waterloo Graduate Student Valedictorian, Faculty of Mathematics	2024
• Ontario Graduate Scholarship	2022, 2023 (declined), 2024, 2025 (declined)
• NSERC Canada Graduate Scholarship - Masters	2023
• University of Lethbridge Dean’s Honor List	2018, 2019, 2020, 2021, 2022
• U SPORTS Academic All-Canadian	2019, 2020, 2021, 2022
• Pronghorn Men’s Community Service Award	2020, 2021, 2022
• University of Lethbridge Shining Graduate	2022
• Carnegie Mellon Sports Analytics Conference Poster Competition Winner	2022
• Bill & Elsa Cade Student of the Year Award	2022
• University of Lethbridge Shining Student	2021
• University of Lethbridge President’s Scholarship	2020
• Ted Rogers Scholarship Fund	2018
• Lethbridge Community Builders Award	2018
• Valedictorian of Catholic Central High School	2018