

David Awosoga, A.Stat

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EDUCATION

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

RELEVANT EXPERIENCE

Canadian Sport Institute Ontario Toronto, Ontario
Performance Data Scientist October 2023 - Present
Sport Data Scientist - Summer Student 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 Waterloo, Ontario
Assistant Coach April 2024 - Present
Scouting and Data Science 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 Waterloo, Ontario
Teaching Assistant Level IV September 2025 - Present
Teaching Assistant Level III January 2025 - August 2025

aching Assistant Level II 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 Lethbridge, Alberta
Undergraduate Student Research Assistant, NSERC 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

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

EXTRACURRICULAR ACTIVITIES

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

VOLUNTEER EXPERIENCE

• <u>Sprint/Hurdles Coach</u> , Lethbridge Track and Field Club	April 2021 - August 2022
• <u>Youth Leader</u> , Love Lethbridge Youth	September 2019 - June 2022
• <u>Teen and In-School Mentor</u> , Big Brothers Big Sisters of Lethbridge and District	September 2015 - May 2022
• <u>Peer Tutor</u> , University of Lethbridge	September 2018 - May 2022
• <u>Coach and Official</u> , 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 ceb1R and ceb1py

- 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 datavolley

- 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 Ghaffarehrani, 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

- NSERC Canada Graduate Scholarship - Doctoral 2025 - 2028
- J.O. Hemphill Award 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