Sean Ovens

s2ovens@uwaterloo.ca
seanovens.com

Research Interests

Impossibility and complexity results for distributed algorithms, concurrent data structures, randomized algorithms, and performance profilers and visualizations.

Education

2019-2023 **PhD in Computer Science** | University of Toronto
Supervised by Faith Ellen

2017-2019 **MSc in Computer Science** | University of Calgary
Supervised by Philipp Woelfel

2013-2017 **BSc with Distinction in Computer Science** | University of Calgary
GPA 3.8/4.0

Experience

2023-Now **Postdoctoral Researcher** | University of Waterloo

2019-2023 **Teaching Assistant** | University of Toronto
CSC2415: Impossibility Results for Distributed Computing (Winter 2023)
CSC265: Enriched Data Structures and Analysis (Fall 2022)
CSC263: Data Structures and Analysis, *Head TA* (Winter 2021, Winter 2022)
CSC2221: Introduction to the Theory of Distributed Computing (Fall 2020, Fall 2021)
CSC236: Introduction to the Theory of Computing (Fall 2019, Winter 2020, Summer 2020)

2022 **Instructor** | University of Toronto
CSC263: Data Structures and Analysis, (Summer 2022)

2017-2019 **Teaching Assistant** | University of Calgary
CPSC319: Data Structures, Algorithms, and their Applications (Winter 2019)
CPSC413: Design and Analysis of Algorithms I (Winter 2018, Summer 2018)
CPSC313: Introduction to Computability (Fall 2017)

Journal Publications

JACM 2023 **The Space Complexity of Consensus from Swap**
Sean Ovens

Conference Publications

PODC 2024 **Determining Recoverable Consensus Numbers** | *Best Paper Award*
Sean Ovens

DISC 2023 **Brief Announcement: The Space Complexity of Set Agreement Using Swap**
Sean Ovens

DISC 2022 **The Space Complexity of Scannable Objects with Bounded Components**
Sean Ovens

PODC 2022 **The Space Complexity of Consensus from Swap** | *Best Paper Award*
Sean Ovens

PODC 2021 **The Space Complexity of Scannable Binary Objects**
Sean Ovens

PODC 2019 **Strongly Linearizable Implementations of Snapshots and Other Type**
Sean Ovens and Philipp Woelfel

In Submission

DIST. **Determining Recoverable Consensus Numbers**
Sean Ovens

Activities and Service

Program Committee Member | PODC 2025, 2024
Journal Reviewer | Distributed Computing
Conference Reviewer | STOC 2024, 2022, 2021; PODC 2024, 2022, 2021

Nov 2024 **Invited Speaker** | HACDA 2024
Talk title: Visualizing the memory layout of multithreaded applications

2024 **Head of Mentorship Program, Competitive Programming Club** | University of Calgary

Jan 2024 **Workshop Instructor, AI Research School** | University of Calgary

2022-2023 **Teaching Fundamentals Certificate** | University of Toronto

Oct 2022 **Mentor, Graduate Application Assistance Program** | University of Toronto

Apr 2022 **Interviewer, Summer Program for Students from Ukraine** | University of Toronto

Oct 2018 **Competitor, Student Innovation Contest** | UIST 2018
Built a prototype of a shoulder-mounted robotic personal assistant

2015-2019 **Member, Problem Solving Club** | University of Calgary

Awards and Scholarships

2023-2025 **NSERC Postdoctoral Fellowship** | University of Waterloo

2022 **SGS Conference Grant** | University of Toronto

2020-2021 **Ontario Graduate Scholarship** | University of Toronto

2018 **Computer Science TA Excellence Award** | University of Calgary

2017, 2018 **Department Research Award** | University of Calgary

2013-2016 **Dean's List, Faculty of Science** | University of Calgary

'14, '15, '16 **Jason Lang Scholarship** | University of Calgary

2015 **Undergraduate Merit Award** | University of Calgary

2013, 2014 **President's Admission Scholarship** | University of Calgary

Competitive Programming Awards

2018 5th place, Calgary Collegiate Programming Contest
2016 6th place, Rocky Mountain Regional Programming Contest
2016 2nd place, Calgary Microsoft College Code Competition
2016 10th place, Alberta Collegiate Programming Contest