

Patrick Devaney

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Citizenship: Canada and United Kingdom

Research Interests

- discrete and computational geometry
- optimization
- approximation algorithms
- graph theory
- complexity

Education

- 2021–Present **MSc Computer Science**, *University of Windsor*, Windsor, ON, 85.0%
Supervisors: Ahmad Biniiaz and Prosenjit Bose
- 2016–2021 **BCS(H) Computer Science**, *University of Windsor*, Windsor, ON, 92.27%
with Great Distinction
Minor in Statistics
- 2016–2021 **BMath(H) Mathematics**, *University of Windsor*, Windsor, ON, 92.27%
with Great Distinction

Experience

Research

- 2020–2021 **Research Assistant**, *University of Windsor*, Windsor, ON
Supervisor: Dr. Ahmad Biniiaz (*September 2020 - April 2021*)
- Researched reducing the approximation factor in an algorithm for bounded-angle minimum spanning trees as part of research project course
- 2019 **Research Assistant**, *University of Windsor*, Windsor, ON
Supervisor: Dr. Arunita Jaekel (*January 2019–April 2019*)
- Worked on vehicular ad-hoc network traffic simulation project using SUMO, Veins, and OMNeT++
- 2018 **Research Assistant**, *University of Windsor*, Windsor, ON
Supervisor: Dr. Sherif Saad (*February 2018–July 2018*)
- Worked as part of a group on designing and developing a proof-of-concept ransomware in C# using agile methodology
 - Responsible for file system functionality
 - Attended cybersecurity consultation meetings with industry

Teaching

- 2021–Present **Graduate Teaching Assistant**, *University of Windsor*, Windsor, ON
Graduate teaching assistant for:
- COMP-4540 Design and Analysis of Algorithms (Fall 2021, Winter 2022)
 - COMP-3670 Computer Networks (Summer 2022)

2018–2019 **Teaching Assistant**, *University of Windsor, Windsor, ON*

Teaching assistant for:

- COMP-2310 Theoretical Foundations of Computer Science (Fall 2019)
- COMP-1000 Key Concepts in Computer Science (Summer 2019)
- COMP-2097 Social Media and Mobile Technology for End Users (Summer 2018)

Technical Skills

Programming Languages: Python, C++, C, Java

Awards and Scholarships

2022–2023	NSERC Canada Graduate Scholarship - Master's	\$17,500
2022	Ontario Graduate Scholarship (declined)	\$15,000
2022	University of Windsor Departmental Scholarship	\$3,000
2021–2023	University of Windsor Master's Entrance Scholarship	\$12,500
2016–2020	University of Windsor Dean's Renewable Entrance Scholarship	\$10,000

Programming Competitions

2017–2020	ACM ICPC Regional Competition	<i>Highest-finishing University of Windsor team</i>
2017–2020	ACM ICPC Local Competition	<i>1st of 10+ local teams</i>
2017	University of Windsor Student-Led Programming Competition	<i>3rd place</i>
2016–2017	Computer Science Society Problem of the Week	<i>1st place</i>

Activities

2018–2019 **Undergraduate Representative**, *Computer Science Council, University of Windsor*

- Responsible for representing undergraduate concerns to the Computer Science departmental council
- Discussed proposals for new courses and changes to existing courses as part of the undergraduate curriculum committee
- Involved in the hiring of 3 new tenure-track professors as part of the appointments committee

Publications

Submitted Papers

- [1] A. Biniaz, P. Bose, and P. Devaney, "A $\frac{13}{9}$ -approximation of the average- $\frac{2\pi}{3}$ -MST." Submitted to CCCG 2022.