Patrick Devaney

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↪ patrickdevaney.net
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, *90.00%*
Supervisors: Ahmad Biniaz 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 Biniaz *(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	*Highest-finishing University of Windsor team*
2017-2020	ACM ICPC Local Competition	*1st of 10+ local teams*
2017	University of Windsor Student-Led Programming Competition	*3rd place*
2016-2017	Computer Science Society Problem of the Week	*1st place*

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.