

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

- 09/2021 - Present **MSc Computer Science**, *University of Windsor*, Windsor, ON, 90.00%
Supervisors: Ahmad Biniiaz and Prosenjit Bose
- 09/2016 - 04/2021 **BCS(H) Computer Science**, *University of Windsor*, Windsor, ON, 92.27%
with Great Distinction
Minor in Statistics
- 09/2016 - 04/2021 **BMath(H) Mathematics**, *University of Windsor*, Windsor, ON, 92.27%
with Great Distinction

Experience

Research

- 09/2020 - 04/2021 **Research Assistant**, *University of Windsor*, Windsor, ON
Supervisor: Dr. Ahmad Biniiaz
- Researched reducing the approximation factor in an algorithm for bounded-angle minimum spanning trees as part of research project course
- 01/2019 - 04/2019 **Research Assistant**, *University of Windsor*, Windsor, ON
Supervisor: Dr. Arunita Jaekel
- Worked on vehicular ad-hoc network traffic simulation project using SUMO, Veins, and OMNeT++
- 02/2018 - 07/2018 **Research Assistant**, *University of Windsor*, Windsor, ON
Supervisor: Dr. Sherif Saad
- 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

- 09/2021 - 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)

05/2018 - 12/2019 **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

09/2018 - 08/2019 **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

Conference Papers

- [1] A. Biniiaz, P. Bose, and P. Devaney, "A $13/9$ -approximation of the average- $2\pi/3$ -MST." CCCG 2022.