# TREVOR OLSEN

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## EDUCATION

**University of South Carolina**, Columbia, SC — *August 2018 - December 2021*
Ph.D. in Computer Science
Dissertation: *Sampling and Robustness in Multi-Robot Visibility-Based Pursuit-Evasion*
Advisor: Jason O'Kane

**University of South Carolina**, Columbia, SC — *August 2016 - May 2020*
Ph.D. in Mathematics
Dissertation: *Distance Related Graph Invariants in Triangulations and Quadrangulations of the Sphere*
Advisors: Éva Czabarka and László Székely

**University of South Carolina**, Columbia, SC — *August 2018 - August 2021*
M.S. in Computer Science

**University of Miami**, Coral Gables, FL — *August 2013 - May 2015*
M.A. in Mathematics

**Palm Beach Atlantic University**, West Palm Beach, FL — *August 2011 - May 2013*
B.S. in Mathematics and Computer Science (dual major)

**Inver Hills Community College**, Inver Grove Heights, MN — *August 2009 - May 2011*
Associate of Arts

## EMPLOYMENT

**University of South Carolina**, Columbia, SC — *August 2020 - Present*
Graduate Assistant, Computer Science

**University of South Carolina**, Columbia, SC — *August 2016 - May 2020*
Graduate Assistant, Mathematics

**Miami Dade College-Kendall**, Kendall, FL — *January 2016 - August 2016*
Adjunct Faculty, Mathematics

**Miami Dade College-Wolfson**, Miami, FL — *May 2015 - December 2015*
Adjunct Faculty, Mathematics

**University of Miami**, Coral Gables, FL — *August 2014 - May 2015*
College Athlete Tutor, Mathematics

**Palm Beach Atlantic University**, West Palm Beach, FL — *August 2012 - May 2013*
Departmental Tutor, Mathematics

## PUBLICATIONS AND PREPRINTS

8. K. Henson-Evertz and T. Olsen, *Increasing Nicotine Dependence Treatment Encounters Through Nursing Education* (in preparation)
7. T. Olsen, N. Stiffler and J. O'Kane, *Robust-by-Design Plans for Multi-Robot Pursuit-Evasion* (submitted, ICRA 2022)

6. T. Olsen, N. Stiffler and J. O'Kane, *Rapid Recovery from Robot Failures in Multi-Robot Visibility-Based Pursuit-Evasion* (accepted, IROS 2021)
5. H. Yerdon, L. Mutter, T. Olsen, R. Travis and A. Suessman, *Clinical Characteristics of Suspected COVID-19 in Pediatric Patients* (accepted, International Journal of Critical Care and Emergency Medicine)
4. T. Olsen, A. Tumlin, N. Stiffler and J. O'Kane *A Visibility Roadmap Sampling Approach for a Multi-Robot Visibility-Based Pursuit-Evasion Problem* (accepted, ICRA 2021)
3. É. Czabarka, T. Olsen, S. Smith, L.A. Székely, *Minimum Wiener Index of Triangulations and Quadrangulations*, arXiv:2003.03873 (submitted)
2. É. Czabarka, P. Dankelmann, T. Olsen, L.A. Székely, *Proximity in Triangulations and Quadrangulations*, arXiv:2001.09012 (submitted)
1. É. Czabarka, P. Dankelmann, T. Olsen, L.A. Székely, *Wiener Index and Remoteness in Triangulations and Quadrangulations*, arXiv:1905.06753 (accepted, Discrete Mathematics & Theoretical Computer Science)

## INVITED TALKS

6. IROS, *Rapid Recovery from Robot Failures in Multi-Robot Visibility-Based Pursuit-Evasion*, September 2021
5. ICRA, *A Visibility Roadmap Sampling Approach for a Multi-Robot Visibility-Based Pursuit-Evasion Problem*, June 2021
4. SEICCGTC, *Minimum Wiener Index on Triangulations and Quadrangulations*, March 2020
3. University of Miami Combinatorics Seminar, *Remoteness and Wiener Index on Triangulations and Quadrangulations*, November 2019
2. Carolina Math Seminar, *Remoteness and Wiener Index on Triangulations and Quadrangulations*, November 2019
1. U of SC Seminar in Advances in Computing , *Remoteness and Wiener Index on Triangulations and Quadrangulations*, November 2019

## GENERAL TALKS

7. U of SC Discrete Math Seminar, *Minimum Wiener Index on Triangulations and Quadrangulations*, March 2020
6. U of SC Student Seminar, *Minimum Wiener Index on Triangulations and Quadrangulations*, March 2020
5. U of SC Student Seminar, *Multi-Robot Visibility-Based Pursuit-Evasion: A Sampling Approach*, October 2019
4. U of SC Student Seminar, *Remoteness and Wiener Index on Triangulations and Quadrangulations*, October 2019
3. U of SC Student Seminar, *The Sperner Property for Posets, a Probabilistic Approach*, January 2019
2. U of SC Research Seminar, *The Sperner Property for Posets, a Probabilistic Approach*, January 2019
1. U of SC Research Seminar, *A Computational Search in Triangulations*, October 2018

## CONFERENCES ATTENDED

5. IEEE International Conference on Robotics and Automation, June 2021
4. IEEE International Conference on Robotics and Automation, June 2020
3. Southeastern International Conference on Combinatorics, Graph Theory & Computing, Florida Atlantic University, March 2020

2. Conference on Additive Combinatorics from a Geometric Viewpoint, University of South Carolina, May 2018
1. Graduate Student Combinatorics Conference, University of Texas at Dallas, April 2018

## PROGRAMMING EXPERIENCE

- Python (including SageMath): Preferred and primary language
- C++: Used for a majority of my CS research
- Visual Basic: Used for a large portions of my undergraduate projects
- HTML: Used for creating personal static websites

## RECENT COMMUNITY OUTREACH

3. Partners for Minorities in Engineering and Computer Science, Workshop Leader, June 2020
2. U of SC High School Math Contest, Group Activity Leader, January 2020
1. Partners for Minorities in Engineering and Computer Science, Workshop Leader, June 2019

## TEACHING EXPERIENCE

| Term | Course | Institution | Evaluation |
|---|---|---|---|
| Fa 2020 | CSCE 750 Analysis of Algorithms (TA) | U of SC | N/A |
| Fa 2020 | CSCE 350 Data Structures and Algorithms (TA) | U of SC | N/A |
| Sp 2020 | MATH 170 Finite Mathematics | U of SC | 4.46/5 |
| Fa 2019 | MATH 122 Buisness Calculus | U of SC | 4.56/5 |
| Su 2019 | MATH 142 Calculus II | U of SC | 4.55/5 |
| Sp 2019 | MATH 122 Buisness Calculus | U of SC | 4.45/5 |
| Fa 2018 | MATH 141 Calculus I (TA) | U of SC | 4.86/5 |
| Fa 2018 | MATH 141 Calculus I (TA) | U of SC | 5/5 |
| Su 2018 | MATH 241 Vector Calculus | U of SC | 4.86/5 |
| Sp 2018 | MATH 121 Business Calculus | U of SC | 4.64/5 |
| Fa 2017 | MATH 111i Intensive Basic College Math | U of SC | 4.79/5 |
| Su 2017 | MATH 142 Calculus II | U of SC | 5/5 |
| Sp 2017 | MATH 142 Calculus II (TA) | U of SC | 4.93/5 |
| Sp 2017 | MATH 142 Calculus II (TA) | U of SC | 5/5 |
| Sp 2017 | MATH 142 Calculus II (TA) | U of SC | 4.75/5 |
| Sp 2017 | MATH 142 Calculus II (TA) | U of SC | 4.84/5 |
| Fa 2016 | MATH 142 Calculus II (TA) | U of SC | 4.82/5 |
| Fa 2016 | MATH 142 Calculus II (TA) | U of SC | 4.44/5 |
| Su 2016 | MAC 1114 Trigonometry | MDC | 4.89/5 |
| Sp 2016 | MAC 1105 College Algebra | MDC | 4.89/5 |
| Sp 2016 | MAC 1114 Trigonometry | MDC | 4.89/5 |
| Fa 2015 | MAC 1105 College Algebra | MDC | 4.89/5 |
| Fa 2015 | MAC 0057 Developmental Mathematics III | MDC | 4.87/5 |
| Fa 2015 | MGF 1107 Math for Liberal Arts II | MDC | 4.97/5 |
| Su 2015 | MAC 1147 Precalculus | MDC | 4.95/5 |
| Su 2015 | MAC 2312 Calculus II | MDC | 4.85/5 |