

# Tyler A. BROWN

## CONTACT INFORMATION

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## EDUCATION

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- JULY 2019 Ph.D. in MATHEMATICS, **Iowa State University**, Ames, IA  
Thesis: “Computable Structure Theory on Banach Spaces”  
— Advisor: Prof. Timothy H. McNicholl
- MAY 2018 Master of Science in MATHEMATICS **Iowa State University**, Ames, IA  
Thesis: “Analytic Computable Structure Theory and  $L^p$ -spaces”  
— Advisor: Timothy H. McNicholl
- MAY 2014 Bachelor of Science in MATHEMATICS **Penn State University**, Middletown, PA  
Minor in Psychology
- MAY 2014 Bachelor of Science in COMPUTER SCIENCE **Penn State University**, Middletown, PA

## POSITIONS HELD

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- AUGUST 2023 - PRESENT ASSISTANT PROFESSOR of Computer Science and Mathematics,  
**Franciscan University of Steubenville**, Steubenville, OH
- AUGUST 2019 - MAY 2023 ASSISTANT PROFESSOR of Mathematics,  
**Columbia College**, Columbia, SC
- AUGUST 2020 - MAY 2023 DIRECTOR of the Business, Math, and Sciences TUTORING CENTER,  
**Columbia College**, Columbia, SC
- AUGUST 2014 - May 2019 Mathematics TEACHING ASSISTANT,  
**Iowa State University**, Ames, IA
- SEPTEMBER 2011 - May 2014 UNDERGRADUATE PEER TUTOR,  
**Penn State University**, Middletown, PA

## TEACHING EXPERIENCE

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ASSISTANT PROFESSOR OF COMPUTER SCIENCE AND MATHEMATICS, **Franciscan University of Steubenville**, Steubenville, OH  
Pending completion of Fall 2023 semester

- ASSISTANT PROFESSOR OF MATHEMATICS, **Columbia College**, Columbia, SC
- 11 semesters of teaching experience, including summer sessions and including current semester, encompassing 49 sections.
  - Coordinator / Lead Instructor for the First-Year Seminar series, May 2021 - May 2023.
- 28 sections of lower-level mathematics courses consisting of 10-22 students
    - Courses include Liberal Arts Mathematics, Precalculus Algebra (and recitation sections), the Calculus sequence, and Discrete Mathematics.
  - 5 sections of mid and upper-level mathematics courses consisting of 3-7 students

- Courses include Differential Equations, Geometry, Intro. to Proofs and Abstract Algebra
- 8 sections of online mathematics courses consisting of 1-9 students
  - Courses include Precalculus Algebra, Business Calculus, and Discrete Mathematics
- 12 sections of Liberal Arts and Leadership courses, consisting of 8-18 students
  - Includes first and second semester First-Year Seminar courses, a tutor training course, and a Leadership development course for the Peer Mentors who assist with in-class with the FY seminar courses.
- 2 sections of Computer Information Science courses
  - Includes Introduction to Programming (Python), and Computer Science for the Liberal Arts
- Directed 4 Independent Studies, each with 1 student
  - Topics included: Abstract Algebra, Advanced Abstract Algebra, and a Two-semester sequence of Computability Theory
- Directed 1 student's senior research project in Computable Analysis

TEACHER'S ASSISTANT, **Iowa State University**, Ames, IA

13 semesters of teaching experience, including summer sessions, encompassing 27 sections

- 4 sections taught as instructor of record, 30 students per section
  - Includes College Algebra, Business Calculus, Calculus I, and Precalculus
- 23 sections taught as Recitation Leader, 30 students per section
  - Includes College Trigonometry (2 sections), Precalculus (6 sections), Calculus I (6 sections) and Calculus II (6 sections)

UNDERGRADUATE PEER TUTOR, **Penn State University**, Middletown, PA

Three years of individual and group tutoring experience

- Topics include Calculus I,II,III, Ordinary Differential Equations, Linear and Abstract Algebra, Intro. to Proofs/Discrete Math, College Trigonometry, College Algebra, Precalculus, Intro. Computer Science Courses and Programming, Introductory Physics and Electromagnetism, Introductory Chemistry.

## TEACHING AWARDS AND NOMINATIONS

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**2021 Student Choice Award for Teaching Excellence**

Columbia College, SC

**(Nominated) 2023 Student Choice Award for Teaching Excellence**

Columbia College, SC

(Nominated) 2022 Student Choice Award for Teaching Excellence  
Columbia College, SC

(Nominated) 2022 "Rookie" Innovative Educator Award  
Columbia College, SC

## PUBLICATIONS AND PREPRINTS

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**T. Brown**, Computing on the Banach Space  $C[0,1]$ , *Computability*, Vol 10 (3), 257-270, July 2021  
DOI: 10.3233/COM-200306

**T. Brown**, T. McNicholl, A.G. Melnikov, On the Complexity of Classifying Lebesgue Spaces, *Journal of Symbolic Logic*, Vol 85 (3), 1254-1288, October 2020  
DOI: <http://dx.doi.org/10.1017/jsl.2020.63>

**T. Brown**, T. McNicholl, Computable structure theory and  $L_p$  spaces, part II, *Archive for Mathematical Logic*, 1-17, October 2019  
DOI: 10.1007/s00153-019-00697-4

**T. Brown**, Computable structure theory on Banach spaces, Doctoral Dissertation, Iowa State University, 2019.

E. Boman, M. Boman, **T. Brown**, S. Dahiya, A. Milbrand, J. Roberge, Euclid21: Euclid's elements for the 21st century, *Convergence*, December 2014.  
DOI:10.4169/convergence20141202

## RESEARCH PRESENTATIONS

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"Computing Unity in  $C[0,1]$ ", Invited talk, Carolina Math Seminar, Columbia College, Columbia, South Carolina, November 2019

"Computing Unity in  $C[0,1]$ ", Invited Talk, 2019 Langenhop Lecture and SIU Pure Mathematics Conference, Southern Illinois University, Carbondale, IL, May 2019

"On the Degrees of Categoricity of Semi-Atomic  $L_p$  Spaces", Invited talk, Joint Mathematics Meeting, Mathematical Association of America, Baltimore Maryland, January 2019

"Computable Structure Theory and  $L_p$  Spaces, Part II", Invited talk, Iowa Colloquium on Information, Complexity and Logic in Computation, Grinnell College, Grinnell Iowa, April 2018.

"Mapping Through the Elements", Mathematical Association of America MathFest 2012, Madison WI, August 2012.

## ASSORTED OTHER PRESENTATIONS

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Commencement Address, Columbia College Commencement Ceremony, Spring 2021

“The Turbulent Mind of Van Gogh”, Invited talk, Van Gogh and His Inspirations Exhibition, Columbia Museum of Art, Columbia, SC, December 2019

## VARIOUS OTHER AWARDS

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**First place** in “Science, Technology, and Mathematics”.  
Penn State Undergraduate Research Exhibition 2013, Poster Session.  
Title: “Mapping Through the Elements”

## FACULTY AND COLLEGE COMMITTEE WORK

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### Committees Chaired

FALL 2022 - SPRING 2023    Fiscal Advisory Committee, **Columbia College**  
FALL 2020 - SPRING 2021    Fiscal Advisory Committee, **Columbia College**  
FALL 2019 - Spring 2022    Learning Innovation Committee, **Columbia College**

### Committee Membership

SPRING 2021 - SPRING 2023    Orientation Committee, **Columbia College**  
FALL 2020 - SPRING 2023    Fiscal Advisory Committee, **Columbia College**  
FALL 2019 - textscSpring 2022    Learning Innovation Committee, **Columbia College**  
FALL 2019 - textscSpring 2022    Retention and Student Success Committee, **Columbia College**

## GRANTS

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-Iowa State GPSS Professional Development Grant (For JMM in Baltimore, MD, 2019)  
-Graduate Student Travel Grant (For JMM in Baltimore, MD, 2019)  
-ASL Travel Grant (For North American Annual Meeting of ASL in Macomb, IL, 2018)

## PROFESSIONAL MEMBERSHIPS

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- IEEE Computer Society
- Association for Symbolic Logic (ASL)
- Mathematical Association of America (MAA)
- American Mathematical Society (AMS)