Matt Schwennesen

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Education

Aug 2023 – · · · ·	**University of Wisconsin – Madison** Perusing Ph.D. in Computer Sciences. GPA: 3.625
Aug 2019 – Dec 2022	**Michigan Technological University,** B.Sc. Computer Science Minor in Mathematical Sciences, GPA: 4.00

Teaching Experience

Jan 2024 – · · · ·	**Head Teaching Assistant,** University of Wisconsin — Madison. CS 400 Programming III
Aug 2023 – Dec 2023	**Teaching Assistant,** University of Wisconsin — Madison. CS 400 Programming III
Aug 2022 – May 2023	**Teaching Assistant,** Michigan Technological University. CS 3411 Systems Programming
Jan 2023 – May 2023	**Lab Instructor,** Michigan Technological University. CS 1121 Introduction to Programming I
Jan 2021 – Dec 2022	**Learning Center Coach,** Michigan Technological University.

Research

May 2022 – Aug 2022	**Locality Sensitive Hashing of Polygons.** Research Experiences for Undergraduates – Marquette University.

- Researched uses of locality sensitive hashing to approximate nearest neighbor searches over polygons.
- Implemented a multi-threaded C++ system to perform geometric approximate nearest neighbor searches.

May 2021 – Aug 2021	**Asymmetric Traveling Salesperson Approximation.** Google Summer of Code – NetworkX.

- Worked with NetworkX to implement approximate asymmetric traveling salesperson algorith.
- Learned how to manage GitHub within a large open source project.
- Perform critical analysis of relevant graph theory and computer science research papers.

Skills

Mathematics	Proof tactics, graph theory, combinatorics, linear optimization, algorithm design, complexity theory
Programming	Python, C, C++, Java, R, SQL, Lisp, Nix, Haskell
Misc.	Academic research, teaching, LaTeX typesetting.

Awards and Achievements

- **Dean's List**, Michigan Technological University, 7 semesters.

Certificates of Merit in:

- **Combinatorics & Graph Theory**. Awarded by Michigan Technological University.
- **Optimization & Graph Algorithms**. Awarded by Michigan Technological University.
- **Statistical Programming**. Awarded by Michigan Technological University.
- **Regression Analysis**. Awarded by Michigan Technological University.
- **Predictive Modeling**. Awarded by Michigan Technological University.