Matt Schwennesen

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Matt Schwennesen
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mjschwenne

Education

Aug 2023 – · · · · **University of Wisconsin – Madison** Perusing Ph.D. in Computer Sciences.
GPA: 3.864

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.

Conferences

Jun 17–21 2024 **NetSci 2024**, Quebéc City, Canada.
Presented during *Software Tools for Network Science* tutorial on cross package network analysis.

Jun 3–13 2024 **Oregon Programming Languages Summer School**, Boston University, Massachusetts.
Types, Semantics and Applications

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.

Research (continued)

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.