Rodney McCoy

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PROFESSIONAL SUMMARY

1st Year Mathematics Graduate Student with experience in pure mathematics and algorithms. Interested in applying breadth of knowledge to solve difficult, critical, real-world problems.

EDUCATION

Ph.D. in Mathematics

- University of Utah | Salt Lake City, UT | *Expected May 2028*

Bachelor of Science in Mathematics - General
Bachelor of Science in Computer Science

University of Idaho | Moscow, ID | August 2019 – May 2023

- Cumulative GPA: 3.83 / 4.0 | Dean's List

EXPERIENCE

Software Developer, Keyport, WA | Keyport Naval Base | May 2023 – July 2023

- Developed VR based software.

Tutoring, Moscow, Id | University of Idaho | August 2022 – May 2023

- Taught students fundamental mathematical principles and techniques / best practices for writing mathematical proofs
- Instructed over a wide variety of courses from the Calculus Series to Theory of Computation and Data Structures / Algorithms

Eagle Scout Award | *April 2016*

- Organized a group of 10+ people in a leadership project to repair props used by high schools' cheer team.
- Preserved and protected the environment by practicing leave no trace and emphasizing sustainability.

PROJECTS

Undergraduate Research (Ongoing) | Fall 2022

- Python implementation of standard permutation algorithms (converting between 1-line, disjoint cycles, transpositions) and implementations of metrics on the symmetric group of permutations
- Analysis and conjecture about proving a necessary and sufficient condition for equality of equation of metrics over signed permutations

Probabilistic Algorithms in Cryptography | Fall 2022 | https://github.com/RodneyMcCoy/probabilistic-algorithms

- Discussion of necessity of probabilistic algorithms, including Theoretical and Practical Computational Complexity
- Implementation of multiple probabilistic algorithms, pseudo random number generators, primality tests, etc
- Visualizing results using Matplotlib and Jupyter Notebook

SKILLS

Proficient in C / C++ | Python
Knowledgeable in GitHub | LaTeX
Familiar with C# | Linux