

Skyler Ruiter

Email: skyler.ruiter1@gmail.com
GitHub: github.com/skyler-ruiter
Website: skylerruiter.dev
LinkedIn: skylerruiter

EDUCATION

Grand Valley State University

B.S. in Computer Science, GPA: 3.99/4.00

Allendale, MI

2020–Current

– Minor: Mathematics

– Related Coursework:

• Theory of Computation

• Numerical Analysis

• Linear Algebra II

• Computing/Graphics with R

• Applied Machine Learning

• Operating Systems Concepts

RESEARCH EXPERIENCE

Grand Valley State University

IVSparse Data Compression Library

Grand Rapids, MI

August 2022–October 2023

– Created two proprietary compression formats which leverage present redundancy in data to allow for usable compressed data with a limited performance loss.

– Involved work in high performance computing (HPC), data compression, and data structures.

Probabilistic Modeling of Genomics Data with Variational Autoencoders

September 2023–Current

– Aims to train a variational autoencoder on genetic data to help predict patient risk based on genetic factors.

– Involves work in HPC, machine learning, and applied mathematics.

EXTRACURRICULAR ACTIVITIES

President of CIS Computing Club

2021–Current

Leads club by managing and organizing members and leadership of over 30 regular attendees.

Networks with academia and local industry to build professional relationships and host events.

Dean's Student Advisory Council

2022–Current

Advises the dean of the Padnos College of Engineering and Computing with a small collection of other students from different discipline.

International Collegiate Programming Contest

2022

Volunteered during contest preparations and competed in event.

PUBLICATIONS

- [1] S. Ruiter, S. Wolfgang, M. Tunnell, T. Triche Jr, E. Carrier, and Z. DeBruine, “Value-Compressed Sparse Column (VCSC): Sparse matrix storage for redundant data”, Preprint.

SCHOLARSHIPS AND AWARDS

- GVSU Faculty Scholarship 2020–2023
- Dean's List 2020–2023
- School of Computing Scholarship 2020

SKILLS

- Git/GitHub
- Machine Learning
- Linux
- L^AT_EX

LANGUAGES

- | | |
|--------------|--------------|
| • C/C++ | Experienced |
| • Python | Experienced |
| • JavaScript | Intermediate |
| • R | Intermediate |

PRESENTATIONS

- | | |
|---|-------------|
| • (IVSparse/Genomic Modeling) Grand Valley State University Undergraduate Research Fair | Fall 2023 |
| • (IVSparse) Grand Rapids Tech Week: Engineering and Computing Showcase | Fall 2023 |
| • (IVSparse) Grand Valley State University Chalk Art Symposium | Fall 2023 |
| • (IVSparse) Grand Valley State University Student Scholar's Day | Winter 2023 |