

DYLAN ZAPZALKA

1406 Oak St.
Brainerd, MN 56401

218-839-7433
dylanjameszapzalka@hotmail.com

- EDUCATION**
- North Dakota State University, Fargo, ND
Bachelor of Science, Computer Science and Mathematics 2019–2022
- Cumulative GPA: 4.00/4.00
 - Advisors: Dr. Saeed Salem & Dr. Indranil SenGupta
 - Senior Paper: [Uncovering the Mathematics Behind Neural Networks](#)
- Central Lakes College, Brainerd, MN
Associates of Arts (Not Completed) 2017–2019
- Cumulative GPA: 4.00/4.00
- WORK EXPERIENCE**
- Veritas Technologies, Minneapolis, MN (Remote)
Associate Software Engineer MAY 2022–PRESENT
- Collaborated with multiple scrum teams to develop new features for Veritas's NetBackup software
 - Developed new processes to automate backups to Azure and AWS cloud environments
 - Worked with C/C++, Go, Java, and Typescript
- Pearson VUE, Minneapolis, MN (Remote)
Software Engineer Intern MAY 2021–AUG 2021
- Developed new features, fixed bugs, and implemented security features for an internal credential management system.
 - Performed security analysis to prepare software for end-of-life
 - Worked with Java, JavaScript, Ant, Gradle, Ivy, and AngularJS
- North Dakota State University, Fargo, ND
Mathematics Teaching Assistant AUG 2020–MAY 2021
- Tutored College Algebra, Trigonometry, and Pre-Calculus.
 - Graded homework and proctored tests
- RESEARCH EXPERIENCE & PROJECTS**
- Undergraduate Research Assistant* SPRING 2022
- Developed novel methods of generating semantic-preserving adversarial examples for GNN malware classifiers
 - Performed experiments on deep learning models with TensorFlow and PyTorch
 - Currently working on writing a paper
- Graph Neural Network Malware Classification Project* FALL 2021
- Developed novel GNNs to perform malware classification on Linux binaries through using their control flow graphs
 - Created a pipeline to extract control flow graph data and to develop, train, and test different GNN models
- Senior Paper* FALL 2021
- Wrote an in-depth expository on the mathematics of deep learning
 - Gave a lecture on various mathematical properties of neural networks

RELEVANT COURSEWORK	<i>Computer Science</i> <ul style="list-style-type: none">- Computer Organization and Architecture- Algorithm Analysis- Theoretical Computer Science- Operating Systems Concepts- Advanced Software Development- Intro to Data Mining <i>Mathematics</i> <ul style="list-style-type: none">- Calculus III- Partial Differential Equations- Intermediate Linear Algebra & Topics in Linear Algebra- Combinatorics- Statistics & Probability
SOFTWARE PROFICIENCIES	C/C++, Java, Python, R, JavaScript, HTML/CSS, TensorFlow, PyTorch, L ^A T _E X, Git, Linux, Mac OS, Windows
ACTIVITIES & INTERESTS	American and Russian Literature, Machine Learning, Mathematics, Poetry, Powerlifting, Software Engineering, System Administration