SETH BASSETTI

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EDUCATION

Western Washington University Bellingham, WA 2021
MS in Computer Science, GPA: 3.56

Montana State University Bozeman, MT 2017
B.Sc in Geology and Computer Science, GPA: 3.86
Awards: Undergraduate Scholars Program Grant Recipient

SKILLS

Software: Vim, Git, SVN, Pytorch, Tensorflow, Bash, SQL
Programming Languages: Expert in Python. Proficient in C, C++, and R. Familiar with Lisp, Fortran, Go, Javascript, C#, and Java

WORK EXPERIENCE

Graduate Researcher 09/2021 - Present
Computer Science Department - Western Washington University
- Worked with a team of researchers and a climate scientist using generative adversarial networks and other machine learning frameworks to develop a predictive climate model

Teaching Assistant 08/2020 - Present
Computer Science Department - MSU and WWU, Bozeman, MT
- Led a group of ~30 undergraduate students in exercises focused on computer systems and web design in C, HTML, CSS, and Javascript.

Event Supervisor 02/2021
Montana Science Olympiad
- Developed and conducted a Codebusters event focused on cryptography for high school students in the Montana Science Olympiad

Undergraduate Researcher 08/2020 - 05/2021
Computational Topology and Geometry - Montana State University, Bozeman, Montana
- Developed an applet through R that provided a simple interface to visualize the effects of persistent homology.
- Applet allowed researchers to experiment with different simplicial complexes and persistence settings to discover novel patterns among certain classes of complexes in two and three dimensions

Python Script Developer Intern 03/2020 - 08/2020
Zoot Enterprises, Bozeman, MT United States
- Worked with a team of developers and a project manager to update, implement and test over 70 python scripts
- Tripled team productivity by developing bash scripts to automate aspects of project such as reformatting file structures or automatically updating program syntax

PROJECTS

Generic Neural Network from Scratch
- Developed fully generic neural network from scratch capable of performing classification or regression tasks.
- Neural network can handle multiple different data-sets and can be easily adjusted for number of hidden layers and nodes per layer

Chess Engine
- Developed a chess engine website with a C++ backend bound to a javascript/HTML frontend capable of playing chess against a human at a high level of competency

RSA Encryptor and RSA Cracker
- Developed a version of the RSA encryption algorithm to encode and decode messages
- Additionally developed optimized brute force method to crack RSA encryptions at a low-level