Cooper Cox

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Education

Computer Science BS | Western Washington University
- Expected graduation: June 2025.
- Mathematics Minor, Honors Interdisciplinary Studies Minor, Premasters Student
- Machine Learning/Deep Learning research member
- 3.72 GPA

Projects

Emulator of Global Change Assessment Model | Python | March 2024 - Present
- Research is based on creating an emulator of GCAM that runs hundreds of times faster and can interpolate input values instead of only accepting binary values
- Currently optimizing renewables and determining what input scenarios work to maximize renewable energy in the year 2050
- Trained model and fixed specific inputs to determine if the emulator achieves similar results to the PNNL GCAM paper, and discovers what inputs can be varied while still maximizing renewables

Earth System Modelling Senior Project | Python | October 2024 - Present
- Utilizes latent diffusion to aid PNNL on Earth System Modeling climate information

Clock App | Javascript | March 2024
- Worked as part of a two person team, coordinated and divided tasks to meet a close deadline
- Uses 3 different API's to greet user and tell them information on the time of day
- Wrote testing file using jest so user actions work as designed and to check overall styling

Coursework

Computer Science: Formal Language and Functional Programming, Database Systems, Analysis of Algorithms and Data Structures, Computer Networks, Object Oriented Design, Machine Learning, Secure Software Development, Automata and Formal Language Theory
Mathematics: Linear Algebra, Multivariable Calculus, Probability and Statistical Inference, Linear Optimization

Applicable Skills

Languages: Python, Java, Racket, C, mySQL, Javascript
IDEs: Visual Studio Code, Thonny, Pulsar
Theoretical: Mathematical Induction, Automata, Regular Expressions, Pumping Lemma, Runtime Analysis, Analysis of Algorithms
Practical: Sorting Algorithms, Vim, Heaps, Stacks, Trees, Elf Files, Multidimensional and Jagged Arrays, Dynamic Programming, Greedy Choice, Graphs

Experience

Hutch Research Machine Learning Member WWU | March 2024 - Present
- Comprehension of Machine Learning/Deep Learning fundamentals
- Attend local team meetings with team, and status meetings with PNNL supervisors