KYLE LOFTHUS kyle.lofthus@gmail.com







Throughout my bachelor's in Computer Science, I focused on increasing my knowledge and experience in Machine Learning and Artificial Intelligence. I know how to work well in a team, and have strong communication and presentation skills from serving over a decade in the military and conducting presentations while working at ARCC (Advanced Research Computing Center) as a Teaching Assistant.

EXPERIENCE

Student Research Computing Employee

ARCC (Advanced Research Computing Center) | Mar 2023 - Present | Laramie, Wy

- Worked with a team developing an A.I. computer vision project using Python, and HPC (high performance computing) to create models that detect and track athletes and detect their jersey numbers for statistical analysis.
- My team expanded on this project to include a pose detection model, to aid sensor data with a visual representation of the athlete's joint angles.
- Researched articles to ensure our project differed or expanded upon what has already been done, and that we were using the most state of the art computer vision models.
- Collaborated with our Project Manager on a second project to reach out to companies and government agencies to develop a partnership to bring in outside funding

ARCC Workshop TA

ARCC | July 2023 - Oct 2023 | Laramie, Wy

- Developed presentations and slides for workshops teaching students Python, Cluster Computing, and Linux.
- Provided feedback for the instructors during rehearsals and tested coding exercises.
- Communicated programming practices to individuals with a wide range of knowledge.

Fire Direction Chief

ARCC | July 2023 - Oct 2023 | Laramie, Wy

- Maintained a Secret Security Clearance.
- Lead a small group of highly skilled soldiers in high stress environments.
- Communicate with personnel in different departments to ensure a smooth process for the mission's success.
- Additional duties included: Unit Weapon's Expert, Unit Master Fitness Trainer, and Unit Prevention Leader (in charge of conduction unit drug testing).

PROJECTS

Athletics A.I. Detection:

Coded in Python, my team and I created a program that incorporated three CNN models. One to detect and track the athletes in video, one to detect the jersey numbers, and one to correctly classify the jersey numbers for accurate statistical analysis

Basic Unix File-System:

Written in C++, the final project in my operating systems class was creating a basic filesystem using the unix iNode system.

Ant Colony Optimization of Economic Load Dispatch:

Used Python and Ant Colony Optimization techniques to minimize cost for managing electric load of a power generating system. This project used 6 generators and the IEEE 30-bus system.

EDUCATION

BS in Computer Science

University of Wyoming

2024

Army Schools/Trainings

Advanced Leadership Course 2020 Structured Self-Development II Basic Leadership Course Structured Self-Development I Advanced Individual Training Basic Training

RELEVANT COURSEWORK

- Intro to Artificial Intelligence
- Practical Machine Learning
- Operating Systems
- Database Systems
- Algorithms and Data Structures
- Software Design
 - o Frameworks: Agile, Scrum, etc

SKILLS

Technical Skills

- Python
- C++
- Java Scala
- JavaScript (Node.js)
- SQL (MySQL)
- Linux
- Cluster Computer (SLURM)

Soft Skills

- Communication
- Public Speaking
- · Presentation skills
- · Complex Problem Solving
- Multitasking
- Attention to Detail
- Leadership
- Teamwork