KRISHNA SAI CHEMUDUPATI

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EDUCATION

M.S. Computer Science *May 2022*
University of Colorado | Boulder, CO
- Coursework: CSCI 5253: Datacenter Scale Computing (Hadoop, Google Cloud Platform, Kubernetes, Docker, PySpark)

B.S. Computer Science (ABET) (Statistics minor and Big Data Concentration) *May 2020*
University of Wyoming (UW) | Laramie, WY **GPA - 3.96/4.0**
- Coursework: Data Mining, Introduction to Artificial Intelligence, Linux Programming, Machine Learning, Database Systems, Data Structures and Algorithms

SKILLS

- Programming Languages/Libraries: Python, C, C++, Java, SQL, R, PySpark, Solidity
- Deep Learning Libraries/Frameworks: PyTorch, TensorFlow, OpenCV
- Development Environment/Tools: Git, Weka, Android Studio, Google Cloud Platform, Docker, Kubernetes

WORK EXPERIENCE

Course Manager – CSCI 1200: The Art of Computational Thinking *Aug 2020 – Present*
University of Colorado, Boulder | Boulder, CO *Python, Communication and Leadership skills*
- Provided undergraduate students with one-on-one tutoring on Python programming concepts during office hours
- Assisted students and managed course content on online Learning Management Platforms such as *Canvas* and *Piazza*
- Graded exams and weekly assignments in the course

Undergraduate Research Assistant *Dec 2018-May 2020*
Mallet Lab, UW | Laramie, WY *Python, NumPy, Matplotlib, Pandas, Scikit-learn, ARFF*
- Explored the characteristics of cases where Algorithms Selection systems (ML models that select the optimal algorithm to solve a given problem) perform poorly to improve their performance in practice
- Designed statistical experiments (Feature selection using Random Forests, Random sampling) to identify reasons for poor performance (unimportant features, many dependent features)
- Written Linux bash scripts to parallelize and run hundreds of jobs on the TETON High-Performance Computing cluster

Undergraduate Research Intern *May 2019-August 2019*
National Center for Atmospheric Research | Boulder, CO *NumPy, Matplotlib, Pandas, NetCDF, Data Visualization*
- Built an interactive tool using *Matplotlib* and *Pandas* to output in situ atmospheric measurements at a point on a radar image
- Programmed *Python* scripts to automate the creation and saving of plots required for analysis
- Extracted weather features from radar imagery using *NetCDF*, *Pandas*, and *Numpy* libraries
- Presented a poster to fellow interns and stakeholders at the end of the summer in the Student Research Poster Session

Computer Science and Math Tutor *Oct 2017-May 2019*
STEP Tutoring Center, UW | Laramie, WY *C++, Java, Communication and Leadership skills*
- Tutored several hundred students and led discussions on Object-Oriented programming concepts of C++ and Java
- Debugged a considerable number of programming assignments
- Tutored students on concepts of multiple Math courses ranging from Trigonometry, College Algebra to Multi-Variable Calculus and Linear Algebra

PROJECTS

OpenAI Lunar Lander v2 *Python, NumPy, TensorFlow*
- Programmed a Q-learning Deep Reinforcement Learning agent that lands a rover perfectly after 1000 episodes of gameplay while consistently achieving rewards of over 200.

Deepfake Detection Challenge on Kaggle *Python, Pandas, NumPy, TensorFlow, PyTorch, OpenCV*
- Created a discriminator network to distinguish between Deepfakes and real videos with 75% accuracy

Optimizing Animal Surveillance Storage using Object Identification *Python, Pandas, NumPy, MXNet, OpenCV*

- Identifies the times when the animal is in frame to split the video and reduce the amount of surveillance footage stored

LIFE – Decentralized Organ Donation Platform *Solidity, Blockchain, JavaScript*

- Developed a Smart Contract on the Ethereum Blockchain to keep track of payments and an immutable list of donors, receivers, and hospitals registered on the platform
- Received the first prize out of nearly 50 teams in the ConsenSys India Blockchain Hackathon with a cash prize of 100,000 INR

Exoplanets Database Website *Python, MySQLdb, Java, JDBC, MySQL, SQL*

- Developed schema and generated report for the exoplanet database, and established connection to the frontend to submit queries

AWARDS AND SCHOLARSHIPS

- Computer Science Faculty Honoring Scholarship | 2017-2020, UW *Laramie, WY*
- Honors Program Scholarship | 2017, UW *Laramie, WY*
- Tau-Beta-Pi Freshman of the Year Award | 2016, UW *Laramie, WY*
- Rocky Mountain Scholarship | 2016-2020, UW *Laramie, WY*
- President's List and Dean's List | 2016-2020, UW *Laramie, WY*