

Sushmita Poudel

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Summary

Dynamic and initiative-taking unclassified graduate student, currently taking pre-requisite classes for admission to a master's in cyber security and Operations at Mississippi State University in Fall 2024. Possessing a robust background in large language model analysis and firsthand experience in practical machine learning applications. Demonstrated teaching ability, coupled with a solid foundation in education science, and proficiency in statistical analysis, programming, and data structures. Currently maintaining a stellar 4.0 GPA.

Project Work in Python

Machine Learning Course

- Investigated diverse large language models, such as GPT-2, BERT, CodeGen, and OPT, to analyze language generation patterns and model behaviors.
- Applied Python, focusing on the sklearn package, for training, testing, and visualizing performance on datasets like California housing and wine data.
- Contributed to drafting a research paper summarizing findings and insights from the machine learning course.

Research Experience

Large Language Model Analysis

Conducted in-depth research on the performance of large language models (LLMs) including GPT-2, OPT, and Codegen. Explored traditional metrics such as perplexity and entropy, as well as model-based metrics like BERT Score and BLEURT. Analyzed and interpreted results, contributing valuable insights to the broader understanding of LLM behavior.

Education

Graduate Degree

Fall 2025

Mississippi State University, Starkville, MS

Algorithms, Machine learning, Data Structures, Statistics, Programming I with C++

Bachelor of Education Science

Graduation 2019

Butwal Multiple Campus, Butwal, Nepal

Experiences

High School Teacher

July 2019- March 2022

Green Plant Boarding Secondary School, Devdaha-7, Devdaha, Nepal

- Developed and implemented engaging course plans tailored to meet the academic, intellectual, and social needs of students.
- Created detailed lesson plans and conducted daily classroom activities to foster a dynamic learning environment.

Skills

- **Programming:** Python, C++
- **Data Analysis:** Machine Learning, Statistical Analysis
- **Web Development:** HTML, CSS, Website Design (Wix, WordPress)
- **Database:** MySQL

Honors and Activities:

- Attended RSA Conference 2023, a premier cybersecurity event, to stay abreast of the latest advancements in security tools, AI's future in security, and professionalism in the industry.