PRAHLAD SIWAKOTI

Materials Physicist
Data Scientist in training

📞 225-210(0199)   ⌽ github.com/siwa-p

📍 Knoxville, TN   in prahlad-siwakoti

SUMMARY

I am an experimental Materials physicist turned Data Scientist. My research focused in synthesizing quantum thin film materials which are otherwise inaccessible in Nature in search for novel phases rooted in the fundamental physics. I have used data from a wide range of measurements sources to analyze and investigate these phases of matter throughout my career and presented my findings through publications in academic journals and research conferences. I am looking forward to integrate my educational experience, research background and programming tools to solve complex problems.

SKILLS

Languages:	R, SQL, Python
Version Control:	Git/Github
Visualization:	ggplot, Matplotlib, R-Shiny
Machine Learning:	Sci-kit Learn, Tensorflow
Query:	SQL

EXPERIENCE

09/2023 – Present   **Data Science Trainee**   **Nashville Software School**
- Gathered data through APIs, Webscraping and SQL query.
- Used python's Pandas library and R's Tidyverse library to perform exploratory data analysis on real-world data.
- Build and investigated statistical models with scikitlearn and statsmodels library
- Performed data visualization with matplotlib, seaborn and ggplot.
- Project management and version control with Git and Github

11/2021 – 12/2023   **PostDoctoral Researcher**   **University of Tennessee at Knoxville**
- Designed and executed experiments in the field of Quantum thin films, creating novel functional properties in artificial structures. Successfully completed projects resulted in publications in reputable academic journals.
- Wrote successful synchrotron beamline proposals and performed experiments on site in Advanced Photon Source, Argonne National Lab
- Provided mentorship and training to graduate students with research, instrumentation, and troubleshooting

01/2018 – 11/2021   **Graduate Research Assistant**   **Louisiana State University, Baton Rouge**
- Explored non-trivial physics of transition metal oxide perovskite thin films with respect to their symmetry and growth orientation and studied various two-dimensional defects.
- Provided training to undergraduate students with research, instrumentation, and troubleshooting

PROJECTS

Midcourse-
Capstone

Effects of Wildland fires in visitation data in US National Parks
Created an interactive R Shiny app of various National Parks in the US featuring wildfire events in the past to visualize the effect of these events in the park visitation statistics.

EDUCATION

01/2024 – Present   **Masters in Data Science Online**   **University of Texas at Austin**
Courses taken: Machine Learning, Probability and Statistical Inference, Data visualization, Algorithms.
Graduating: Spring 2025

09/2023 - Present   **Data Science Apprenticeship**   **Nashiville Software School, Nashville, TN**
Intensive part-time boot-camp focusing on data science fundamentals and problem solving

08/2015 - 11/2021   **PhD in Physics**   **Louisiana State University, Baton Rouge, LA**
Dissertation: Effects of Structure, Crystallographic Orientation, and Dimensionality on Emergent Properties of Transition Metal Oxide Thin Films

08/2011- 03/2014   **Masters of Science in Physics**   **Tribhuvan University, Kathmandu, Nepal**
Dissertation: *First-Principles Study of Neutral ($(N_2)_n$) and Singly Cationic ($(N_2)_m^+$) Molecular Nitrogen Clusters;*
(n = 1, 2 and m = 1, 2, 3, 4, 5 and 6)

PEER REVIEWED PUBLICATIONS
Link to Google Scholar :   Prahald Siwakoti