

Pawan Kumar Thapaliya

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## Objective

Seeking to obtain a challenging position in a professional environment in Physics and Data science towards career advancement.

## EDUCATION

Tribhuvan University -Kathmandu, Nepal

Graduate date

Master of Science

Dec/2011

The University of Texas Rio Grande Valley - Brownsville, Texas  
date

Graduate

Master of Science in Physics

July 2019

## Activities:

American Physical Society, Member

11/2016 - Present

The American Association of Medical Physics, Member

11/2016 - Present

## Relevant Coursework:

- Mathematical Physics
- Classical Mechanics
- Graduate Research
- Electrodynamics
- Quantum Mechanics(I,II)
- Computational Physics
- Statistical Mechanics

## EXPERIENCE

University of Rio Grande valley - Edinburg, Texas

Research Assistant in Bio Physics: Work - Study

08/2016 - 08/2017

- Study DNA and DNA topology
- Study Monte Carlo Simulations technique in single molecules.
- Design a extended model of Peyrard Bishop model for DNA helix.

- Use LINUX to study the Knot and Knot plotting
- Use Python programming language to analysis the topological structure and DNA stretching

Teaching and Research Assistant at Department of PHYSICS (UTRGV) : Work-Study 09/2017 - 05/2019

- Taught Astro -1401 and Astor-1402
- Taught PHYS-1401 , PHYS-1402, and Gen PHYS 2425

Master Thesis

Defense date: 07/2019

Bubble Nucleation and Coopetativity in Duplex Stretching of a Helicoidal DNA Model

Teaching and Research Assistant at Department of PHYSICS(USF): Work-Study 08/2019 - Present

- Teaching General Physics II Labs 2049
- Study Gamma and Theta rhythms of Hippocampus Cells.
- Study Na<sup>+</sup> oscillations of the neurons and astrocytes

Gorakh Kali High school , Balaju, Kathmandu, Nepal

5/2013 - 8/2016

Secondary Physics Teacher

- Taught High School Physics
- Helped student to understand the nature of physics through numeric approach
- Demonstrate the principal of Physics through experimental approach

SELF EMPLOYMENT

Worked as a Tutor

1/2007 - 7/2016

- Each year taught 6-10 High school student
- Helped student to solve the Problem from Science.
- Helped Student to solve the Problem from Compulsory math.
- Helped student to solve the problem from Optional Math.
- Always created real life scenario to make them clear about the problem.
- avoid formula method and adopted practical method to make them understanding.

SKILLS

Trilingual in Nepali, English and Hindi: read, write and speak.

Microsoft Office(Word, Excel, Power Point), Linux, Capstone, MATLAB, Mathematica, matplotlib, Pandas, Numpy

Computational skills to accomplish Monte Carlo simulations and Markov chain using

Python, FORTRAN, and C++.

#### TRAINING:

Attended Professional Development Session for Teaching Assistant 09/15/2016

Classroom Management Training at UTRGV Brownsville 11/20/2018

STEM Laboratory three day TA Training University of South Florida

08/20/2019-08/22/2019

ITA Language Assessment preparation/PAS workshops on AUGUST 27th and 28th

2019 at University of South Florida.

ITA assessment presentation at 3:30 this Friday, September 6, in FAO 019

Fall 2019 TA Training - August 19th 8:30 a.m. - 4:00 p.m. at AA Academy for

Teaching and Learning Excellence USF

SQL for Data Science Coursera Sep 2020

Introduction to Data Science in Python Jul 2020

Neural Network and Deep learning Jul 2020

#### REFERENCE 1

Andreas Hanke

#### Reference2

Soma Mukherjee

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