Narendra Kumar

Doctoral Researcher, Technological University of the Shannon: Midlands Midwest

CONTACT:

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PROFILE:

I am a **Doctoral Researcher** in HEI Group under the ambit of Technological University of the Shannon (Midlands Midwest), working at the intersection of **AI/ML, materials science, and physics-based computational modeling**. I hold a strong academic foundation in Computer Science and Mathematics, with an MCA degree, and specialize in machine learning and neural networks for scientific and engineering applications.

EXPERIENCE:

Doctoral Researcher
Technological University of the Shannon: Midlands Midwest
October 2025 - Present

- Build an AI model for the detection of microplastics type from the FTIR data
- Mentored Masters Students for completion of their presentation and initiation of their Masters Thesis
- Actively participated in weekly meetings showcasing progress of my research work

Lecturer (AI, Robotics and Web Development)
Rishihood University, Sonipat, Haryana, India
Nov 2024 - Oct 2025

- Contributed to **development of Machine Learning and Neural Network Course** in Rishihood University.
- Designed and delivered coursework on **Web Development** and **Problem-Solving Using Python**, with a focus on implementing **Mathematical Functions for scientific computations**.
- Contributed to **Product Development**, leveraging **AI-driven insights** to enhance a **student progress tracking system**.

Senior Programming Instructor
NLK Inter College, Kanpur, Uttar Pradesh, India
September 2022 - Nov 2024

- Taught desktop application development using **C++/C** and web development using the **MERN stack**.
- Conducted workshops on computing fundamentals and related topics.

SKILLS:

- Expertise in creating CAD models, developing products, and performing section analysis, motion analysis, and other advanced simulations

- Strong background in Computer Science and Maths

- Proficient in Python, MATLAB, numpy, scipy for data analysis and numerical simulations.

Products Developed:

- Hydraulic Extrusion Machine for building HPMC solid pellets for dry eye
- Moisture Chamber Glasses with magnetic attachment mechanism to hold silicone cups

LANGUAGES:

English (Fluent)
Hindi (Native)
Nepali (Fluent)

Web Developer
SKYAI Technologies, IIT Kanpur, Uttar Pradesh, India
July 2021 - September 2022

- Built **web interfaces for SkyAI Technologies** to represent and visualize data effectively.
- Developed **interactive dashboards** for data analysis and user management.

EDUCATION:

Doctoral Researcher in Material Science
2025 - Current
Technological University of the Shannon: Midlands Midwest   Pursuing

Master of Computer Applications (MCA)
2019 - 2021
Chatrapati Shahu Ji Maharaj University, Kanpur, India   Graduated: 2021

Bachelor of Computer Applications (BCA)
2015 - 2018
AKTU University, Lucknow, Uttar Pradesh, India   Graduated: 2018

Intermediate (Equivalent to Leaving Certificate, Ireland)
2012 - 2014
Uttar Pradesh Board, Allahabad, Uttar Pradesh, India   Passed: 2014

High School (Equivalent to Irish Junior Certificate/Junior Cycle Qualification)
2011 - 2012
Uttar Pradesh Board, Allahabad, Uttar Pradesh, India   Passed: 2012

Awards:

• Certificate of Commendation in BCA for outstanding Academic Performance.

• Inspire Scholarship: Awarded to the top 1% of scorers in Intermediate (Equivalent to Irish Leaving Certificate)