

# Nalin Kumar

## Contact

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## Languages

English, Hindi, Magadhi

## Programming Languages & Libraries

C, Python, R, HTML,  
Keras, Tensorflow,  
Numpy, pandas,  
Matplotlib

## Skills

NLP  
Computer Vision  
Inferential Statistics  
MATLAB, Mathematica  
Netbeans, Streamlit  
Visual Studio Code  
Data Analysis  
Anaconda  
RStudio  
MySQL  
L<sup>A</sup>T<sub>E</sub>X  
Linux  
(Ubuntu 18.0.4 LTS  
Ubuntu 19.0.4 Mate)  
Windows  
(XP, Vista, 7, 8, 10)

## Education

2016– 2021	<b>National Institute of Science Education and Research</b> Integrated MSc Major: Mathematics    Minor: Computer Science	Jatni, Odisha
2014–2016	<b>DAV Public School</b> 92.3%, All India Senior School Certificate Examination (2016) by CBSE	Patna, Bihar, India
2014	<b>St. Karen's High School</b> 9.4 CGPA, Secondary School Examination (2014) by CBSE	Patna, Bihar, India

## Interests

### Machine Learning

Machine Learning Algorithms, Artificial Neural Network, NLP, Computer Vision

### Statistics

Parametric & Bayesian Statistics, Hypothesis Testing

## Work & Experience

Summer' 20	<b>TATA Steels</b> <i>Internship</i> Worked under Head of Advanced Analytics, Kalinganagar and Head Analytics Marketing and Sales. <ul style="list-style-type: none"><li>• Worked on detection and counting of steel reinforcement bars using deep learning.</li><li>• Worked on Dealer names matching (Entity Matching) using Machine Learning.</li><li>• Worked on Document Verification for FAMD Exports, TATA Steels, using text analytics and its UI development. The estimated cost saving through the project is 1 Cr. INR per annum.</li></ul>	India
Even Sem '20	<b>NISER</b> <i>Semester Project</i> Semester Project under Dr. Subhankar Mishra on Computer vision. <ul style="list-style-type: none"><li>• Emotion detection of Tom &amp; Jerry.</li><li>• COVID-19 Face-mask Detection.</li><li>• Analysis of existing face detection algorithms.</li></ul>	Bhubaneswar, India
Winter '19	<b>JNU</b> <i>Internship</i> 2 weeks winter internship under Dr. Narinder Singh Sahni on Gaussian process.	New Delhi, India
Odd Sem '19	<b>NISER</b> <i>Semester Project</i> Semester Project under Dr. Subhankar Mishra on Artificial Neural Networks. <ul style="list-style-type: none"><li>• Text &amp; image classification.</li><li>• Multimodal fusion of text and image for sentiment analysis.</li></ul>	Bhubaneswar, India
Summer '19	<b>JNU</b> <i>Internship</i> Summer internship under Dr. Narinder Singh Sahni on Regression Analysis.	New Delhi, India
Summer '18	<b>IIT Hyderabad</b> <i>Internship</i> Summer internship under Dr. Narasimha on Introduction to Cryptography.	Hyderabad, India
Summer '17	<b>HRI</b> <i>Internship</i> Summer internship under Prof. Kalyan Chakraborty on Group Theory.	Allahabad, India

## Achievements

**Finalist in Battlefield (Data forecasting case study) held at Techkriti 2017, IIT Kanpur & Tiger Analytics.**

**Winner of NEC IIT Bombay and CBIT, Hyderabad Presents BUZZness (Quiz).**

## Scholarships

**INSPIRE Scholarship**

## Workshops & Camps

2017	<b>SPIM</b> Audited lectures of SPIM, 2017 held at HRI, Allahabad	HRI, Allahabad
March '17	<b>Mathematica</b> Attended two days workshop on Mathematica held at NISER, Bhubaneswar.	NISER, Jatni

## Activities

Currently working on English Translation of Atharva Veda (written in Vedic Sanskrit).

Currently working on a survey paper for face detection algorithms.

Worked on a research paper on using quaternion algebra in multimodal fusion model for hate speech classification.

Presented the paper "Exploring Deep Multimodal Fusion of Text and Photo for Hate Speech Classification" by Yang et al. at NISER, Bhubaneswar.

Presented the paper "Exploring Deep Multimodal Fusion of Text and Photo for Hate Speech Classification" by Yang et al. at NISER, Bhubaneswar.

Gave a talk on 'Some results on q-series and polynomials and series of Bloch-Polya Type' at HRI, Allahabad.

Part of organising committee of mathematics dept. for Open Day event (2019) held at NISER, Bhubaneswar.

Presented Tower of Hanoi for high school students in Open Day event (2018) held at NISER, Bhubaneswar.

Volunteered for Open Day event (2017) at NISER, Bhubaneswar.

Designed a game named "Pet Parasite War" explaining biological concept for BIO-LUDO held at NISER, Bhubaneswar.

Analysed the winning strategy for the game "dots and boxes".

Analysed the revenue receipts of Chattisgarh for years 2005-2016 as economics project work

## Hobbies & Games

Table Tennis

DOTA 2 & Valorant

Sketching