

# Nilesh Verma

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## 🎓 EDUCATION

### M.Sc. Computer Science & Application

Atal Bihari Vajpayee Vishwavidyalaya

- **88.95% mark (Gold Medalist)**

Jul 2018 – Jul 2020

Bilaspur, India

### B.Sc. Computer Science and Application

Bilaspur University

- **82.54% marks (Gold Medalist)**

Jul 2014 – Jul 2017

Bilaspur, India

## 👛 PROFESSIONAL EXPERIENCE

### Data Scientist

Amlgo Labs [🔗](#)

- Working in the automotive industry to create end-to-end AI analytical applications on the AWS Cloud.
- Work on unstructured text data, extracting information (vehicle part names, categories, etc.) using NLP predictive modeling techniques and converting it into useful information.
- Responsible for developing, testing, and deploying information extraction and social media analysis pipelines.

May 2022 – present

Gurugram, India

### Data Scientist

Xceedance Inc [🔗](#)

- Developing **deep learning** and **machine learning** models for **natural language processing** and **computer vision tasks** such as BERT, YOLO, and others.
- Worked on **data extraction** from unstructured raw data such as emails, pdfs, images, and so on, using AI and data mining techniques.

May 2021 – May 2022

Gurugram, India

### NLP Intern

Ganani.ai [🔗](#)

- Worked on **Speech/Text Analytics** and created **Natural Language Processing (NLP)** models for **Regional languages** such as Hindi, Tamil, and Marathi.
- Built **Conversation AI** solution for **Multiple Languages**.
- Used different frameworks to **compare NLP models** and **deployed as an API**.

Feb 2021 – May 2021

Banglore, India

### Data Scientist Intern

J P Data Solution Ltd [🔗](#)

- Engaged in all project lifecycle stages, including **requirements/needs gathering**, **data collection and labelling**, **data transformation/processing**, **building & validating models**, and **deploying working AI/ML solutions**.
- Performed **explanatory data analysis (EDA)**.

Jul 2020 – Dec 2020

UK (Remote Work)

## 📖 PUBLICATIONS & PATENT

- Bhatia, L., Ghosh, D., Sahu, D. K., Sarangi, P. K., & **Verma, N.** (2022). A device for the production of ethanol from lignocellulosic biomass (German Registration No. 202022102746). The German Patent and Trademark Office. (**Patent Link**) [🔗](#)
- Hota, H., Sharma, D. **Verma, N.** "Lexicon-Based Sentiment Analysis Using Twitter Data: A Case of COVID-19 Outbreak in India and Abroad". Book title: Data Science for COVID-19 (**Elsevier**) [🔗](#)
- Dharmendra Dangi; DheerajKumar Dixit; Amit Bhagat; RAJIT NAIR ; **Nilesh Verma** "Analysing the sentiments by classifying the tweets based on COVID-19 using machine learning classifiers". Conference: TRIBES 2021 (**IEEE Xplore**) [🔗](#)
- **Verma, N.** "Classification of Pima Indian Diabetes Dataset using Decision Tree Techniques." International Journal for Scientific Research and Development 7.12 (2020): 114-118. (**Published**) [🔗](#)
- **Verma, N.** Kashyap, U. "Development of Depression Identification Decision Support System (DIDSS) Using Machine Learning Approach". Conference: ICIRSM 2021 (**Link**) [🔗](#)
- Hota, H., Sharma, D. **Verma, N.** "COVID-19: Machine Learning Methods Applied for Twitter Sentiment Analysis of Indians Before and After Lockdown and During Unlock". Journal: International Journal of Computing Science and Mathematics. (**Inderscience Publishers**) (**In Production**)
- Hota, H., Sharma, D. **Verma, N.** "Integration of Deep Learning Techniques for Sentiment and Emotion Analysis of Social Media Data". Journal: International Journal of Intelligent Systems Technologies and Applications. (**Inderscience Publishers**) (**In Production**)
- Hota, H., Sharma, D. **Verma, N.** "COVIS-Health: Deep Learning and Explainable AI based Expert System for Identification of Covid-19 Infection". (**Manuscript submitted**)

## 📄 CERTIFICATES

### Python 101 for Data Science [🔗](#)

IBM Cognitiveclass (2020)

### Deep Learning Specialization [🔗](#)

DeepLearning.ai (2020)

### Machine Learning Specialization [🔗](#)

WU (2020)

### Data Science Math Skills [🔗](#)

Duke University (2020)

### Problem Solving [🔗](#)

HackerRank(2020)

## OPEN SOURCE CONTRIBUTION

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### Deep Image Search - AI-Based Image Search Engine [↗](#)

Deep Image Search is an AI-based image search engine that includes deep transfer learning features Extraction and tree-based vectorized search technique.

### AutoWave - Automatic Audio Classification Library [↗](#)

AutoWave is an complete audio automatic classification library with other features plottings, audio agumentaion, data loading etc.

### Deep Text Search - AI Based Text Search & Recommendation System [↗](#)

Deep Text Search is an AI-powered multilingual text search and recommendation engine with state-of-the-art transformer-based multilingual text embedding (50+ languages).

## ACADEMIC PROJECTS

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### COVIS-Health: Coronavirus Identification System for Health [↗](#)

Apr 2020

Deep Learning, xAI, Computer Vision, Web Development, Healthcare Domain

- It is a web-based **COVID-19 Infection Detection System** Model using **Chest CT-Scan image** to **classified positive and negative** cases with **99% accuracy**.
- It provides details about the infection area using **Explainable AI techniques**.

### Human Depression Detection Using Actigraphy & Social Media Data [↗](#)

Mar 2020

Machine Learning, NLP, Deep Learning, Web Development, Psychology Domain

- It is a web-based tool or **wearable tool** that **detects depression in humans using Actigraphy data in 1 hour of periods activities** and provides information about a **patient having depression or not**.
- Social media data, A **Text and Voice Search-Based Depression Detection Model** using social media data that **detect the Depression** and also explain **which words having more impacts on increasing depression**.

## ACHIEVEMENTS

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- Recognition of being placed **3rd** in **AppScript**, A 48-Hours Hackathon Conducted by **IEEE APSIT** on 6-7th Feb 2021.
- Secured **1st rank** in *The Great Indian Hiring Hackathon (Nov-20)* based on Foretelling the Retail Price Host by **MachineHack**.
- Achieved **1st rank** in *Data Sprint #16: Electronic Products Pricing Hackathon (December 2020)* hosted by **DPHI**.
- **1st rank** in **Robotics, Big Data, and Android Application Development** university-level workshop.
- Various state-level news covers the development of real-time covid-19 detection through CT-Scan software.
- Clear **NTA-NET exam** on the **first attempt** and eligible for assistant professor in all over India.

## SKILLS

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### Language

Python, C++

### Tools

Jupyter Notebook, Microsoft Visual Studio Code, Spyder, Anaconda IDE, Google Sheet, Excel, Web Scraping.

### Visualization

Seaborn, Plotly

### Frameworks

Pandas, NumPy, Scikit-learn, Keras, BeautifulSoup, NLTK, Spacy, OpenCV, TensorFlow, Flask, RASA ChatBot, Pytorch, FastAI

### Upskilling

MLOps, AWS Cloud, NoSQL(MongoDB), SQL

## OTHER ACTIVITIES

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- Lifetime member of Indian Science Congress Association. ([Link](#) [↗](#))
- Delivered a Seminar on Natural language processing on **High-End Workshop on Natural Language Processing with Deep Learning: Application and Research Direction**. ([Link](#) [↗](#))

## REFERENCES

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**Dr. H.S. Hota**, Professor & Head,

Department of Computer Science & Application, Atal Bihari Vajpayee Vishwavidyalaya, Bilaspur, (C.G.), India – 495220  
proffhota@gmail.com

**Dr. Rashmi Gupta**, Assistant Professor,

Department of Computer Science & Application, Atal Bihari Vajpayee Vishwavidyalaya, Bilaspur, (C.G.), India – 495220  
rashmi.kvk@gmail.com

## LANGUAGES

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- English
- Hindi