

Akshay Nayak

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EDUCATION

National Institute of Technology, Warangal (NITW), TS, India

Bachelor of Technology in Computer Science and Engineering

CGPA: 6.92 / 10.00

Jul. 2017 – Present.

Prince Academy, Sikar, Rajasthan, India

All India Senior School Certificate Examination (AISSCE)

Percentage Scored:- 90.5%

Jul. 2015 – Jun. 2017

St. Marys's Sr. Sec. School, Sikar, Rajasthan, India

Council for the Indian School Certificate Examinations (CISCE)

Percentage Scored:- 92.5%

Jul. 2005 – Jun. 2015

SKILLS SUMMARY

Tools & Libraries: TensorFlow, Keras, Android Studio, Scikit-Learn, Numpy, Scipy, Pandas, OpenCV, Tableau.

Techniques: Convolutional Neural Networks, Machine Learning Algorithms, Sparse Representation Learning, Evolutionary Algorithms, SVM, PCA, Classification & Clustering algorithms and so on.

Operating Systems: Linux, Android, Windows, RaspberryPi OS.

Mathematics: Statistics, Probability, Modelling & Optimization Techniques, Stochastic Calculus & Monte Carlo Simulation.

Languages: English, Hindi.

Technical Languages: Python, Java, C++, C, Latex, SQL, Go.

Interests: Computer Vision, Data Science, Android, Computer Networks, Distributed Systems, Robotics & Automation.

Soft Skills: Leadership, Event Management, Teamwork, Public Speaking, Project Management, Report Writing.

PUBLICATIONS

- Dr. M. Srinivas, Akshay Nayak, and Abhishek Bhatt. 2019. **Forged File Detection and Steganographic content Identification (FFDASCI) using Deep Learning Techniques**. In the workshop proceedings of the CEUR working notes (CEUR-WS). Collocated with CLEF 2019. Vol 2380. September 9-12, 2019. Lugano, Switzerland.
- Dr. M Srinivas, S. Saurav, Akshay Nayak, and Murkeshan A P. **"Multi Features Based Facial Expression Recognition"**. Accepted in Machine Learning Algorithms and Applications book chapter, Wiley Press and SCOPUS indexing, 2020.
- 'COVID-19: An untold story of SARS-CoV2', (**communicated**)
- 'Analysis of Novel Coronavirus (COVID-19) Effect on World Economy Using Deep Learning', (**communicated**)
- 'INASNET: Automatic Identification of Coronavirus Disease (COVID-19) Using Deep Neural Network', (**communicated**)
- 'IDENTIFICATION OF FORGED AND STEGO IMAGES (IFSI) USING DEEP LEARNING METHOD', (**communicated**)
- 'CDD-NASNET: Automatic Coronavirus Disease (COVID-19) Detection Using Dense Neural Architecture Search Network', (**communicated**)

WORK EXPERIENCE

SETU, Bengaluru, India

Software development engineer Internship in Automation & QA

May. 2019 – Jul. 2019

- Developed an authentication and authorization system for SETU collect.
- Prepared and submitted reports and other documentation to assist development team members.
- Developed an OAuth 2.0 protocol and worked on blockchain concepts for building a fully digitalized bank.

Skylark Labs, San Francisco, USA

Data Scientist Intern

Aug. 2018 – Apr. 2020

- Mentor : Amarjot Singh**, Research Scientist, Stanford University, USA.
- Custom artificial intelligence solutions for physical security based on Biometric Recognition and worked in the data modelling team.
- Worked on Disguised person identification by analyzing the facial landmarks and using pose estimation.

Microsoft Academia Accelerator, Hyderabad, India

Codefundo++ 2018 Institute Winner

Oct. 2018 – Feb. 2019

- Mentor : Sudheesh Singanamalla**, Ph.D. student, University of Washington, Seattle.
- I have worked the web application designed for natural disaster management and provides an optimal way of communication when the whole network is shattered.
- Worked on implementation of the distributed LTE (dLTE) network with the help of raspberry-pi-3.

National Institute of Technology, Warangal, Warangal, India

Undergraduate Research Assistant

Dec. 2018 – Present.

- Guide : Dr. M. Srinivas**, Assistant Professor, Department of Computer Science and Engineering, NIT Warangal.
- Worked on finding an optimal method of detecting COVID-19 infected person using deep learning techniques.
- Worked on developing an efficient way for detecting modified and forged files and also worked on identifying steganographic content identification.

- **Guide : Dr. S. N. Omkar** , Chief Research Scientist, IISc Bengaluru.
 - Worked on the project titled "Disguised Person Identification using Motion Signatures" using 3D-Resnet model and PAF.
 - Extracted body points using gait analysis and worked on multitask cascaded convolutional neural network (MTCNN).
 - Worked on various deep learning models like Resnet, ResNext, Scatternet and etc.
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HONORS & AWARDS

- National Winner at Smart India Hackathon (SIH) 2020 — August, 2020.
 - Selected for Microsoft Learn Student Ambassadors Program 2020 — August, 2020.
 - Second Runner's Up (3rd Prize) at Microsoft Codefundo++ 2019 Hackathon — October, 2019.
 - Institute Winner at Microsoft Codefundo++ 2018 Hackathon — October, 2018.
 - Institute Winner at INK Makeathon 2018 — September 2018.
 - Awarded Kishore Vaigyanik Protsahan Yojana (KVPY) 2017 fellowship for excellent academic performance.
 - Bronze Medalist in International Taekwondo Championship by WTF TAFISA
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PROJECTS

SATYA

Smart India Hackathon, 2020

Feb. 2020 – Aug. 2020

- Designed and developed a django application in order to combat the corruption and Bribery System in India. Developed an android application for better user experience at our platform.

AGNI

Microsoft Codefundo++ Hackathon, 2019

May. 2019 – Sep. 2019

- Built an azure blockchain based e-voting system proof of concept using ECDSA and RSA cryptographic schemes.

BRAHMASTRA

Microsoft Codefundo++ Competition, 2018

Oct. 2018 – Feb. 2019

- Developed a web application which helps in natural disaster management in low activity network areas as it is based on USSD messaging service and able to connect the users to the remaining world even in low network connection.
- I had developed the dLTE (distributed LTE) network with the help of raspberry-pi and have created a web application.

GARIMA

INK Makers makeathon, 2018

Sep. 2018 – Sep. 2018

- Developed an application which will provide safest path at that particular hour by considering previous 10 years crime dataset & ensures a person's safety and generating the weights from it for particular crime according to their severity.
- I had developed a django application which is searching the safest and the easiest possible route between the source and the destination and have created a SVM model which has been used at the back end part.

TRINETRA

Academic (Data Science) Project

Jan. 2020 – Apr. 2020

- I have built a convolutional neural network (CNN) and optical character recognition (OCR) based working model which is identifying a person riding on the bike without a helmet and recognizing the bike number plate in absence of helmet.
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POSITIONS OF RESPONSIBILITY

Co-Founder & Analytics Head

Big Data & Analytics Club, NIT Warangal

Jan. 2020 – Present.

- This club has been established for furnishing an analytics culture at NITW.
- As the lead member for the Big Data & Analytics Club, I am responsible for the development of a research culture and improving the research culture at National Institute of Technology, Warangal. Additionally, I am organizing workshops in different areas of data science and analytics.

Additional Secretary

Electronics Amateurs & HAM Club, NIT Warangal

April. 2020 – Present.

- Worked on imparting basic knowledge regarding electronics & robotics amongst zealous students.
- Conducted & Managed various workshops, lectures, projects and competitions.

Sub-Coordinator

Sponsorship Department, SpringSpree'2020, NIT Warangal

Jan. 2020 – Apr. 2020

- I worked as a Sponsorship Sub-Coordinator for NITW's cultural fest named SpringSpree.

Web Developer

Web and Software Development Cell (WSDC), NIT Warangal

Aug. 2018 – Aug. 2019

- I worked as a software developer and have managed the institute website and have built a Django module for the inhouse result section on WSDC portal.

Event Manager

TechFresh, Technozion'18, NIT Warangal

Aug. 2018 – Oct. 2018

- I worked as an event manager for one of the greatest event in our institute's technical fest Technozion.