

# Samarth Meghani

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## SKILLS SUMMARY

- **Languages:** Python(Expert), C++(Excellent), JAVA(Proficient), SQL(Proficient), R(Proficient)
- **Frameworks:** Scikit-learn, NLTK, PyTorch, TensorFlow, Keras, Darts
- **Soft Skills:** Leadership, Analytical skills, Problem Solving Skills, Time Management

## EDUCATION

- **VIT Bhopal University, Bhopal** Aug 2020 - July 2024(Anticipated)  
*Bachelor of Technology - Computer Science and Engineering; CGPA: 9.04/10*
- **International Institute of Information Technology, Hyderabad** Oct 2021 - July 2022  
*Foundation of Modern Machine Learning Course; Grade: A*
- **Simpkins School, Agra** May 2019 - July 2020  
*Senior School Certificate Examination (CBSE); Percentage: 95%*
- **Simpkins School, Agra** April 2017 - May 2018  
*Secondary School Examination (CBSE); Percentage: 94.34%*

## INTERNSHIPS

- **CSIR-Structural Engineering Research Centre Govt. of India** Dec 2022 - Present  
*Research Intern (Full-time)*
  - : Developing a Multiscale Framework for Investigating the role of Carbon-based Nanomaterials under the supervision of Prof. Principal Scientist Dr. Srinivasa Babu Ramisetty
  - : Working with a Multivariate Time series dataset that requires data processing before being put to use in deep learning and statistical models
  - : Working on a Physics-Driven model for Enhancing the Component-level Performance of Offshore Engineering Structures
- **Indian Institute of Technology, Indore** June 2022 - Oct 2022  
*Research Intern (Full-time)*
  - **Sarcasm Detection:** Working on detection of sarcasm in the text on the MUsTARD dataset (Multimodal Dataset) under the guidance of Prof. Nagendra Kumar, Indian Institute of Technology, Indore. and Prof. Shekhar Nayak, University of Groningen. (Have a high potential of being published in a reputable journal)
  - **Predicting Atmospheric Rivers:** Engaged in the prediction of Atmospheric Rivers (AR) by calculating IVT values for characterizing AR using deep learning techniques like autoencoder with LSTM, ConvLSTM models under the guidance of Prof. Nagendra Kumar, Indian Institute of Technology, Indore. (Under Review in the AGU WRR journal)

## OTHER EXPERIENCES

- **International Institute of Information Technology, Hyderabad** Oct 2022 - Dec 2022  
*Trainee (Full-time)*
  - : Assisting Research team on project FaceOff: Video to Video face swap
  - : Learned to build and implement GANs, VQVAE2 network models
- **Robotics Club, VIT Bhopal** July 2021 - Present  
*Club Tech Member (Full-time)*
  - : Contributed in Organizing the webinars and the workshops
  - : Conducted an Event called "Robothon" a healthy hackathon in our University
  - : Participated in the Event called "E-Phantom" and bagged the position under top 5 candidates.

## PROJECTS

- **FaceOff: Video to Video face swap:** (Work in progress) The aim is to swap the face along with the emotions and expressions of the face from source face to target face. Tech: Python, PyTorch, parallel programming (August '22)
- **Prediction of Atmospheric Rivers (Deep Learning, Time series data prediction):** Research oriented, Build a Model which predicts the availability of Atmospheric Rivers using Integrated Water Vapor Transport(IVT) Values across the Globe Tech: Python, PyTorch, Multi-threading, parallel programming, TensorFlow (August '22)
- **Conversion of Hand Gestures to Text (Deep Learning, Computer Vision):** User-friendly Human Computer Interface where the Computer understands the human sign, Goal is to classify the hand gestures and try to predict word out of that Tech: Python, Hunspell, Tensorflow, Keras & OpenCV. (June '22)
- **Image Compression and expansion using autoencoders (Machine Learning, Deep Learning):** Lead a team of 4, Trained a model which compresses an image to a small sized imaged and recompress that image into normal size without losing many features. Tech: Python, Keras, Tenssorflow (May '21)
- **Travel Agency App (App Development using Java):** Scratch like application platform for vehicle booking for the traveler at their own from the given list of vehicles and features including like return vehicle at any time, admin login for user, staff details and vehicle status updation and check the statistics of your agency. Tech: Java, NetBeans, SQL (Dec '20)
- **Hands On Robotics:** Created from scratch mobile basic robots such as laptop-controlled robot, line follower robot, and an obstacle avoider Robot. Tech: C, Arduino Microcontroller (Oct '20)

## CERTIFICATIONS AND COURSES

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- : Indian Institute of Technology Kanpur: [Classical Mechanics - 1](#)
- : Jointly Conducted by CSSTEAP, IIRS, ISRO and UNOOSA: [Geospatial Applications for Disaster Risk Management](#)
- : [6th Summer School on Artificial Intelligence](#) organized by International Institute of Information Technology, Hyderabad
- : “[Python for Scientific Computing](#)” conducted by Department of Computer Science and Engineering, NIT Warangal
- : Online FDP: “[Data Science for ALL](#)” jointly organized by E & ICT Academies at NIT Warangal, IIITDM Jabalpur, IIT Kanpur, NIT Patna, IIT Guwahati, MNIT Jaipur and IIT Roorkee.
- : Participated in a 40-hour Online Faculty Development Program titled “[Deep Learning Applications – Parallel Architectures](#)” jointly organized by E & ICT Academies at IIT Guwahati, IIT Kanpur, MNIT Jaipur, NIT Patna, NIT Warangal, IIT Roorkee and PDPM IIITDM Jabalpur

## ACHIEVEMENTS

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- Awarded with the Research Internship Awards 2022-23 @ IIT Bombay - Nov, 2022
- Secured [7th position in FMML program](#) conducted by: IIIT, Hyderabad - July, 2022
- (Twice) [Top 10 Performer in AI Shiksha](#) program jointly conducted by: IIT-Madras, IIT-Kharagpur, IIT-Goa, IIT-Palakkad - May, 2022
- August Challenge 2021 CodeChef Global Rank - 242; Score - 510; Solved 6 ques out of 10; CodeChef rating - 3
- Microsoft Certified: [Azure AI Engineer Associate](#)
- Third Runner's Up at NIELIT Chennai in Azadi ka Amrit Mahotsav [Skill Test competition](#) on the topic Develop a Multi-Node Hadoop Cluster. - Aug, 2021
- Awarded Gold Medal in National Science Olympiad Conducted by Techfest, IIT Bombay. - Dec, 2018(Class 11)
- Awarded Silver Medal in National Cyber Olympiad Conducted by KSHITIJ - IIT Kharagpur - 2018