

CURRENT ROLE

- **PhD Scholar, Computer Science Department**
Indian Institute of Technology, Ropar *Jan. 2019 - Present*

EDUCATION

- **Master of Technology in Computer Science and Engineering** *Calicut, Kerala*
National Institute of Technology, Calicut ; CGPA: 7.73 *July. 2015 – June. 2017*
- **Bachelor of Technology in Computer Science and Engineering** *Kurukshetra, Haryana*
Kurukshetra University; %: 74.4 *Aug. 2009 – July. 2013*
- **12th, CBSE** *Panchkula, Haryana*
Jawahar Navodaya Vidyalaya; %: 82.2 *April. 2008 – Mar. 2009*
- **10th, CBSE** *Panchkula, Haryana*
Jawahar Navodaya Vidyalaya; %: 80 *April. 2006 – Mar. 2007*

RESEARCH AND WORK EXPERIENCE

- **Centre for Development of Advanced Computing (CDAC)** *Pune, Maharastra*
Knowledge Associate *Aug 2017- Dec 2018*
 - **IPoIB:** Provide system software support to IP applications to run over CDAC Infiniband HCA
 - **Air Pollution Prediction:** It was a part of air quality monitoring. The aim is to predict pollution dilution number from large set of parameters.
 - **Python GUI:** Build a Tkinter based GUI for running terminal based applications related RISC-V Processors.
 - **IAF Exams:** Setting up servers and network for online conduction of Indian Air Force exams.
 - **Machine Learning Tutor:** Giving lectures related to machine learning models and linear algebra.
 - **InfiniBand Applications:** Infiniband application to get benchmarks of InfiniBand HCA.
- **Futureworks Technologies** *Chandigarh, India*
Software Developer/Trainee *Sept 2013 - Aug 2014*
 - **Website Development:** Collecting requirements, design specifications, implementation

PROJECTS

- **Prediction of organic chemical reactions based of machine learning** *Mar 2019 - May 2019*
IIT Ropar
 - Prediction problem - predict the outcome given input data.
 - Data preprocessing
 - Machine learning model implementation
 - Experiments
- **Build IPoIB (IP over InfiniBand) module for InfiniBand based channel adapter**
CDAC *Aug 2017- Dec 2018*
 - Building the Module.
 - Testing with traditional IP applications.
 - Bench-marking performance.
- **Logo Classification**
IIT Ropar *Mar 2019 - May 2019*
 - Image classification- classify images in two classes logo and non-logo
 - Data preprocessing and images feature extraction
 - Feature extraction using Deep Learning

- Machine learning model implementation
- Experiments

- **Fault Tolerance in SDN**

- **MTech Project, NIT Calicut**

Sept 2016 - June 2017

- Objective : Preventive mechanism to prevent DoS attacks in SDN.
- Debugging Software Defined Networks.
- Performance of Distributed SDN Controllers.

- **Auction Website**

- **NIT Calicut**

Aug 2015 - Dec 2015

- Language : PHP, HTML, CSS, Javascript.
- Database : MySQL.
- Tools : Xampp Server.
- Objective : Selling unneeded things at best price.

PROGRAMMING SKILLS

• **Languages:** Python, C, SQL

Technologies: Keras, Tensorflow, scikit-learn

RELEVANT COURSES

- Machine Learning
- Mathematical Foundations for Computer Science
- Deep Learning A to Z
- Machine Learning (Coursera)

POSITION OF RESPONSIBILITY

- **Teaching Assistant**

- **Artificial Intelligence, IIT Ropar**

- Assisted about 35 BTech MTech students in Lab work and course work
- Evaluated lab assignments and quizzes

- **Teaching Assistant**

- **Digital Electronics Lab, NIT Calicut**

- Assisted about 40 students in Digital Circuits based Lab projects and Lab assignments.
- Maintained lab resources.

- **Teaching Assistant**

- **Data Structure and Programming Lab, NIT Calicut**

- Assisted about 10 students in data structure based Lab projects and Lab assignments.
- Assisted in managing score cards, assignment sheets and exams.

STRENGTHS

- Positive Attitude, Intelligent, Hardworking, Social Interaction

INTEREST AND HOBBIES

- Trekking, Travelling, Cricket.

ACHIEVEMENTS

- GATE(2015) AIR: 357 (GATE Score: 755)
- GATE(2017) AIR: 850 (GATE Score: 684)

REFERENCES

- **Dr. S D Madhu Kumar**

- Designation : Professor, Department of Computer Science and Engineering
- Organization : NIT Calicut
- Phone No : 94473-53393
- Email : madhu@nitc.ac.in

DECLARATION

- I hereby declare that the information given above is correct and true to my knowledge.

(Kapil Rana)