

Contact Information	Research Project Assistant CPDM (Current lab), Supercomputer Education and Research Centre (Previous lab), Indian Institute of Science, Bangalore, India 560012	Lab: 423, SERC, IISc Phone: +917017562795 Email: subhashc.iisc@gmail.com Web: https://iisc-scv.github.io/resume/
Research & Interest	My interest lies in the intersection area of privacy-preserving machine learning, cryptography, NLP, deep reinforcement learning, virtual reality, robotics with AR/VR, and information security. My most recent work focused on developing a spoken dialogue system in a controlled knowledge base. Where I designed and developed a VR lab for college experiments and provided virtual assistance in the virtual lab experiments. I also have worked with Padma Shri Prof. Balki at Supercomputer Education Research Centre, IISc. on "Cryptographic Algorithm Validation System," where I wrote code for validating DSA, ECDSA, RSA, etc., algorithms. Nowadays, I am also tutoring two USA-based freshman students for "AI and Python."	
Advance Proficiency Certificate Programs (IISc)	➤ Indian Institute of Science, Bangalore, IndiaJan-May 2019 Proficiency Program: Reinforcement Learning Advisor: Prof. Shalabh Bhatnagar CSA, IISc	Lab: Stochastic Systems Laboratory, CSA Web: https://www.csa.iisc.ac.in/~shalabh/index.html
	➤ Indian Institute of Science, Bangalore, India.....Jan-May 2018 Proficiency Program: Deep Learning Advisor: Prof. Sri Ram Ganapathi, ECE IISc	Lab: Learning and Extraction of Acoustic Patterns Web: http://leap.ee.iisc.ac.in/sriram/
	➤ Indian Institute of Science, Bangalore, India.....Aug-Dec 2017 Proficiency Program: Data Mining Advisor: Prof. Susheela Devi, CSA, IISc	Lab: Artificial Intelligence Lab, CSA Web: https://www.csa.iisc.ac.in/~susheela/
Audited Courses (IISc)	➤ Indian Institute of Science, Bangalore, India.....Aug-Dec 2019 Dept.: Robert Bosch Centre for Cyber-Physical Systems Course: Autonomous Navigation [CP-313]	Advisor: Mr. Raghu Krishnapuram Web: https://cps.iisc.ac.in/people/research/
	➤ Indian Institute of Science, Bangalore, India.....Aug-Dec 2017 Dept.: Computer Science and Automation (CSA) Course: Design & Analysis of Algorithms [E0 – 225]	Advisors: Prof. Arnab Bhattacharyya & Prof. Anand Louis Web: https://www.comp.nus.edu.sg/~arnab/
	➤ Indian Institute of Science, Bangalore, India.....Aug-Dec 2017 Dept.: Computational Data Science (CDS) Course: Machine Learning with Large Datasets DS-222]	Advisor: Prof. Partha Pratim Talukdar Web: https://eecs.iisc.ac.in/people/partha-pratim-talukdar/
Coursera Certificate Courses	➤ Course: Introduction to High-Performance and Parallel Computing..... Jul-Sept 2021 Offered By: University of Colorado Boulder, USA	Platform- Coursera
	➤ Course: Crash Course on Python (100%)..... Jan-May 2021 Offered By: Google	Platform; Coursera
	➤ Course: System Administration and IT Infrastructure Services (95%)..... Jan-May 2021 Offered By: Google	Platform: Coursera
	➤ Course: Google Ads for Beginners (100%)..... Jan-May 2021 Offered By: Coursera Project Network	Platform: Coursera
	➤ Course: Consonants of American English Pronunciation (94%)..... Jan-May 2021 Offered By: Coursera Project Network	Platform: Coursera
Education	➤ B. Tech: Computer Science and Information Technology (7.48/10)..... 2013-2017 Inst.: Institute of Engineering and Technology, Bareilly, U.P. ➤ Intermediate: PCM (ISC Board) (60.13%)..... 2010-2011 College: Career Convent College, Vikas Nagar Lucknow, U.P. ➤ High School: Science Stream (UP Board) (63.17%).....2008 School: D.R.L. Inter College Gandhi Nagar Pilkhawa, U.P.	
Employment	➤ Independent Tutor of Python & AI (Teaching two USA base freshmen)Feb 2021-Present Platform: SuperProf. (Online) ➤ Research Project Assistant.....Oct 2019 –Present Dept.: National Design and Innovation Center CPDM Inst.: Indian Institute of Science Bangalore, India ➤ Research Project Assistant Jan 2019 - Sep 2019 Dept.: Supercomputer Education and Research Centre (SERC) Inst.: Indian Institute of Science, Bangalore, India ➤ Summer Research Fellow (SRF)..... Jun 2018 - Jul 2018 Inst.: Indian Academy of Sciences (IAS), Bangalore, India ➤ Undergrad Summer School 2017 (Research Intern) Jul 2017 - Jul 2017 Dept.: Indian Institute of Science, Bangalore, India Inst.: Department of Computer Science & Automation (CSA) ➤ Intern..... Jun 2016 – Jul 2016 Dept.: IT Department, Lucknow Division, Northern Railway Organization: Indian Railway	

<i>Employment</i>	➤ Intern (Advance Java Programming for Web Development)..... Jun 2015 - Sept 2015 Inst.: NIIT-Oracle Workforce Development Program, NIIT, Lucknow.
<i>Projects</i>	<p>➤ National Design Innovation Network..... Oct 2019 – Present Advisors: Prof. B. Gurumoorthy (CPDM, IISc), Research Scientist MC Kumari (CPDM, IISc) Brief: In this project, I am working as a team lead where we are designing and developing a VR experiment lab for college students. In this virtual lab, we also introduced a virtual assistant, which will help in the experiment. Till now, we have completed five experiments. We also keep taking feedback from children of Air Force School, Hebbal, Bangalore, and nearby government schools by calling them from time to time to test the VR experiments.</p> <p>➤ Cryptographic Algorithm Validation System (CAVS)..... Jan 2019 – Sep 2019 Advisors: Prof. N. Balakrishnan (SERC, IISc), Senior Research Scientist Mr. M.R. Muralidharan Brief: In this project, I was working as co-lead. I have written more than 10k lines of code to validate DSA, ECDSA, RSA, etc., algorithms. I was also managing the server and Github for the team.</p> <p>➤ Autonomous Navigation based on place recognition..... Aug 2019 - Dec 2019 Advisor: Prof. Chiranchib Bhattacharya (CSA, IISc.), Mr. Raghu Krishnapuram (Robert Bosch Centre for Cyber-Physical Systems, IISc.) Brief: In this project, I wrote code for place recognition, edge recognition, moving the drone inside any unknown building, and finding all possible paths. All work is done on the simulator.</p> <p>➤ Implementation of Double Q-Learning algorithm on Mountain Car Game-Reinforcement Learning..... Jan-May 2019 Advisor: Prof. Shalabh Bhatnagar (CSA, IISc.) Brief: This project was part of my course (deep reinforcement learning) curriculum, where I implemented a Double Q-learning algorithm on Mountain Car Game.</p> <p>➤ Probabilistic Normal Distribution-A physical model to demonstrate children so that they can visualize normal distribution by performing physical experiment..... (Jun 2018- Jul 2018) Advisor: Prof. Amit Apte (International Center for Theoretical Sciences (ICTS)) Brief: In this project, I worked as co-lead, where we developed a physical model to demonstrate the probabilistic normal distribution.</p> <p>➤ MNIST handwritten digit recognition using CNN, RNN, and LSTM..... (Jan –May 2018) Advisors: Prof. Sri Ram Ganapathi (ECE, IISc) Brief: This project was part of my course (deep learning) curriculum, where I implemented a handwritten digit recognition algorithm on MNIST data set and compared the results.</p> <p>➤ Implementation of NN, Knn, K-mean algorithm on Iris Data Set (UCI- Machine learning repository)..... Jul –Dec 2017 Advisors: Prof. Susheela Devi (CSA, IISc) Brief: This project was part of my course (data mining) curriculum, where I wrote raw code in C for NN, Knn, and K-mean algorithm and tested it on an Iris Data Set and compared the results.</p> <p>➤ Reliable Energy Balance Model for Wireless Sensor Networks..... May, 2017 Advisors: Prof. Ravendra Singh (IET, MJPRU) Brief: This was my major college project, where I worked as a team lead, and we worked on a research paper to minimize energy consumption in transferring data packets.</p> <p>➤ Dynamic Clustering Head Node Selection Using Fuzzy C-Mean algorithm..... January, 2017 Advisors: Prof. Ravendra Singh (IET, MJPRU) Brief: This project was my minor college project, where I worked as team lead, and we implemented DK Lobiyal’s research paper.</p> <p>➤ Application of machine learning in the prediction of types of tumor (Malignant/Benign).....Dec, 2016 Advisors: Prof. Ravendra Singh (IET, MJPRU)</p> <p>➤ PCM with RUN- A PC game which helps in learning Physics, Chemistry, and Mathematics formulas, key points by playing the game..... March 04, 2015 Brief: I worked as a co-lead, concept designer, and problem-setter. It was part of “TCS Game On!” a competition where our team was the semifinalist.</p> <p>➤ SAR (Self Attendance Register)- Android-based register App that keeps track of student’s attendance and notifies if individuals are lacking the required set attendance.....March 2015 Advisors: Prof. Ravendra Singh (IET, MJPRU)</p>
<i>International Conferences/ Symposiums</i>	<p>➤ Google Cloud Next 21Oct 12-14, 2021</p> <p>➤ Secure Multiparty Computation: Theory and Practice..... Jan 19-22, 2020 Web: https://www.csa.iisc.ac.in/~cris/MPCWorkshop/</p> <p>➤ “2019 Global Technology Summit” Carnegie India.....Dec 4-6, 2019</p> <p>➤ “Deconstructing Data Localization in India” Workshop 2019, Carnegie Endowment for International Peace, IndiaDec 4, 2019</p> <p>➤ Brain, Computing and Learning (BCL) Workshop 2019, Indian Institute of Science Bangalore..... Jun24-26, 2019</p> <p>➤ Data Science Symposium 2017, Indian Institute of Science Bangalore..... Feb 24-25, 2017</p> <p>➤ INTERNET OF THINGS (IoT): Smart Innovation & Uses, TEQIP II in association with IEEE UP Section, India..... Apr 22-23, 2016</p> <p>➤ WAVELET AND ITS APPLICATION IN ENGINEERING PROBLEM Symposium..... Dec 20-21, 2015 Institute of Engineer and Technology, MJPRU, Bareilly, UP</p>

<i>Leadership/ Achievements</i>	<ul style="list-style-type: none"> ➤ NET Qualified- All India Rank-148 (JEST-2018)..... April- 2018 ➤ Got Rank <100 top data Science student out of 8000 Students at Univ.AI (A Startup of AI by Harvard and MIT Professors..... Sep- 2021 ➤ Active Member of Hindi Samiti, a group of IISc. Which organizes different cultural events during the whole year. Jul 2017 – Present ➤ Active Member of Indra-Dhanush IET MJPRU- The group which gathers local slum children and teaches them in the evening time (Free and Quality Education).....Aug 2013 – Jun 2017 ➤ Class Representative (CR) during my undergrad.....Aug 2014 – Jun 2017 ➤ ACM ICPC AIR Rank 132, Kolkata Region..... Oct- 2015 ➤ Computer Quiz Winner at College level..... 2010 ➤ Best Rank Scorer in Engineering Entrance Exam from Career Convent Inter College, Lucknow..... 2011 ➤ Secured 3rd Position in high school at whole exam center..... 2008 ➤ Class Monitor from class 3rd to class 10th and Topper of the class..... Jul 2003 – May 2008
<i>Skills/ Interest</i>	<ul style="list-style-type: none"> ➤ Machine Learning, Simulation (NetSim), Programming in Java, C, C++, Octave, Python, C#, HTML, Wicket, PHP, CSS, XML, MYSQL, MySql, IBM Watson services, Full stack developer (Medium level), Unity3D, google STT, google TTS, etc. ➤ Writing Hindi Poetry, Cricket, listening to music, and playing cricket.
<i>Languages</i>	<ul style="list-style-type: none"> ➤ English, Hindi, Sanskrit, Awadhi.