

# Shiv Kumar

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## EDUCATION

### NETAJI SUBHAS INSTITUTE OF TECHNOLOGY

B.E. INFORMATION TECHNOLOGY  
New Delhi | Expected Aug 2020 |  
CGPA: 8.14/10.0

## SKILLS

### LANGUAGES AND FRAMEWORKS

C • C++ • Python • Java • Golang •  
HTML • CSS • Bootstrap •  
Javascript • jQuery • NodeJS •  
Express • Scikit Learn • Tensorflow •  
Keras • ROS • NLTK •  $\text{\LaTeX}$  •  
OpenCV • Flask

### MACHINE LEARNING

• Regression • Support Vector  
Machines • Naive Bayes • K Nearest  
Neighbours • Decision Trees • Deep  
Learning • Natural Language  
Processing • Reinforcement Learning

### MISCELLANEOUS

• Shell Scripting • UI/UX Design and  
Graphic Designing • Kinetic  
Typography • Video Editing

## AWARDS

- Participated in 12 Model United Nations Conferences; Won awards in 9 of them.
- Awarded the pyTorch challenger scholarship by Facebook and Udacity.
- Awarded the school scholar achievement award for continuous academic excellence for 5 years.

## PUBLICATION

**DNA based storage: Introduction, Characteristics Applications and Challenges**, accepted for publication in the Annals of Computer Science and Information Systems (2300-5963), Poland.

[\[DOCUMENT\]](#)

Authors: D.K.Sharma, S. Kumar, A.Kumar

## MOOCS & COURSES

• NAND2Tetris • Convolutional Neural Networks • Sequence Models • Data structures in C++

## EXPERIENCE

### RESEARCH AND DEVELOPMENT INTERN | LABORATORY FOR COMPUTATIONAL SOCIAL SYSTEMS, I.I.I.T., NEW DELHI October'18-Present| New Delhi

- Part of a team conducting research on collusive social networks.
- Worked on determining candidate collusive groups on online reviews and ranking them to achieve state of the art results.
- Implemented multiple baselines and scraped data to prepare datasets used in the research.

### UNDERGRADUATE RESEARCHER | CENTER FOR ADVANCED INFORMATION TECHNOLOGY FIELD STUDIES, N.S.U.T., NEW DELHI September'18-Present| New Delhi

- Worked on projects relating to opportunistic networks
- Also worked on wireless energy transfer incentive based routing

### SOFTWARE DEVELOPMENT LEAD | AUTOMATED ROVER AND EMBEDDED SYSTEMS ROBOTICS, N.S.U.T. September'18 - | New Delhi

- Currently leading a team of 10 developers to design and implement the software systems for an autonomous rover to participate in a 4 phase University Rover Challenge which involves working on ROS, OpenCV; implementing different SLAM based algorithms.

## PROJECTS UNDERTAKEN

### COMPARATIVE ANALYSIS AND STUDY OF DIFFERENT SUPERVISED LEARNING ALGORITHMS. [\[HERE\]](#)

June'18-August'18 | Independent Study | Netaji Subhas Institute of Technology

- Implemented and compared conventional regression and classification methods such as multi-variable Linear Regression, Logistic Regression, Naive Bayes and KNN using basic principles based on different applications.
- Implemented and compared of multi layered neural networks (ANN, CNN, Resnets, RNNs) using Numpy, Tensorflow and Keras for problems relating to complex boundaries, images and temporal data.

### MAGICAL COMMANDS FOR BASH (MCB) [\[HERE\]](#)

September'18 - | Independent Study | Netaji Subhas Institute of Technology

- Started an open source project to bring together Harry Potter fans on Github to replace bash commands with Harry Potter spells with regular improvements and maintenance.
- Guided beginners in open source to make their first contributions by making beginner friendly entry points.

### SABER [\[HERE\]](#)

December'18 - | Independent Study | Netaji Subhas Institute of Technology

- A project meant to facilitate the process of integrating college time table into user's schedule while also reporting clashes in different time slots due to different electives facilitating elective selection.
- Used by multiple students around university, saving hours of productive time.

## POSITIONS OF RESPONSIBILITY

### HEAD OF OPERATIONS | DELEGATE | DELEGATION TO HARVARD NATIONAL MODEL UNITED NATIONS, BOSTON, M.A. Oct 2016 - March 2017 | New Delhi

- Member of award winning delegation at the prestigious 4-day conference which saw participation of over 3000 students from 70+ countries.
- Oversaw logistics, operations and documentation of the entire delegation, interacting with different stakeholders in the process.