

Shiv Kumar

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EDUCATION

NETAJI SUBHAS INSTITUTE OF TECHNOLOGY

B.E. INFORMATION TECHNOLOGY
New Delhi | Expected Aug 2020 |
CGPA: 8.27/10.0

SKILLS

LANGUAGES AND FRAMEWORKS

C • C++ • Python • Java • Golang •
HTML • CSS • Bootstrap •
Javascript • jQuery • NodeJS •
Express • Scikit Learn • Tensorflow •
Keras • ROS • NLTK • \LaTeX •
OpenCV • Flask • Shell Scripting •
pyTorch

MACHINE LEARNING[[HERE](#)]

• Regression • Support Vector
Machines • Naive Bayes • K Nearest
Neighbours • Decision Trees • Deep
Learning

REINFORCEMENT LEARN- ING[[HERE](#)]

• Monte Carlo Methods • Temporal
Difference Methods • Deep Q
Network

AWARDS

- Participated in 12 Model United Nations Conferences; Won awards in 9 of them.
- 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

- Reinforcement Learning • Deep Learning • NAND2Tetris • 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

BEACON [[HERE](#)]

March'19 - | Independent Study | Netaji Subhas Institute of Technology

- Implemented sarsa max based temporal difference algorithm to train a Reinforcement Learning agent to find an optimum path to pick and drop passengers.
- Was able to score more than 9.1 best average score over 100 consecutive episodes, that is more than the limit set according to openai gym.

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.