Mridul **Nagpal**

https://mridulnagpal.github.io | mridulnagpal07@gmail.com | +91-8800672585

EDUCATION

INTERNATIONAL INSTITUTE OF INFORMATION TECHNOLOGY, HYDERABAD
B.TECH IN COMPUTER SCIENCE AND ENGINEERING
Expected May 2020
CGPA: 8.57/10

ADARSH PUBLIC SR. SCHOOL, DELHI
SENIOR SECONDARY, CBSE
Percentage: 97.2/100
SECONDARY, CBSE
CGPA: 10/10

COURSEWORK

Data Structures and Algorithms
Convolutional Neural Networks
Machine Learning Algorithms
Operating Systems
Linear and Abstract Algebra
Introduction to Databases
Artificial Intelligence
Structured Systems Analysis and Design
Graphics
Natural Language Processing
Database Systems
Statistical methods in AI
Linear Algebra
Game Design and Engg.

TECHNICAL SKILLS

Python • Javascript • C++ • C • MATLAB • Git • Django HTML • CSS • Ruby on Rails • Jupyter • MySQL • Shell Scripting • Unity • Octave • Numpy • Keras • sklearn • Tensorflow • Bootstrap • Scikit learn • PHP • Pytorch • OpenCV • Numpy • Scipy • React JS • Node JS • Leaflet • Deep Learning • Generative Networks

WORK EXPERIENCE

QATAR COMPUTING RESEARCH INSTITUTE
FREELANCE RESEARCHER
Sept '17 – Present
Working as a freelance researcher for QCRI. One of the projects included creating faces on some conditions using generative networks. Others were related to Natural Language Processing, Computer Vision, Machine Learning, Probability and Statistics.

ABATAR
CO-FOUNDER
April '18 – Present
Abatar is a startup based on text classification for social media platforms. It helps to organize daily social media data and creates a chatbot which replies on your behalf. Also it suggests people what to post next.
Work summary

GOOGLE SUMMER OF CODE 2018
STUDENT DEVELOPER AT PUBLICLAB
May '18 – Present
Made a javascript library as an extension to leaflet-blurred-location. As a project for PublicLab to display locations of people keeping security in mind in a clever way. Also worked on new features for leaflet- blurred-location.
Work summary

GOOGLE SUMMER OF CODE 2017
STUDENT DEVELOPER AT PUBLICLAB
May '17 – August '17
Made a javascript library integrated to PublicLab.A Leaflet-based HTML interface for selecting a "blurred" or low-resolution location, to preserve privacy. Converting text to location and vice-versa using APIs in real time.
Work summary

NATIONAL INFORMATICS CENTER
SOFTWARE DEVELOPER INTERN
Dec '16 – Jan '17
Worked with the UI/UX revamp of the intranet website for the petroleum ministry under National Informatics Centre. Used HTML and CSS to build the frontend and Javascript for the backend and content managing.

OPEN SOURCE CONTRIBUTIONS
FREEDOMBOX PLINTH
Aug '16 - Present
Did a UI/UX revamp for Plinth (UI for freedombox) written in Django. Also added a new app (bind9) to Plinth.

INTERESTS

Deep Learning and Computer Vision (Implemented deep learning models like VGG net , Deep Convolutional Neural Network, Inception Net and many more.) Natural Language Processing, Recurrent Neural Networks, Convolutional Neural Networks, Generative Adversarial Networks, Long Short Term Memory, Creating a human Clone

POSITIONS

OSDG Admin, 2017-18, IIITH
E-Cell Tech Head, 2017-18, IIITH
Machine Learning Club Head 2017-18, IIITH
OSDG Head, 2018-19, IIITH
E-Cell Corporate Relations Head 2018-19, IIITH
Football Team Captain, 2014-15, Adarsh Public School

ACHIEVEMENTS

ACADEMICS

Received Academic Excellence Award Dean's List for Academic Year 2016-17
JEE Mains : Ranked 405 among 1.2 Million people.
JEE Advanced: Ranked 1641 among 100,000 people shortlisted by JEE Mains.

HACKER EARTH

Ranked 27 out of 500 in a challenge by D.E.Shaw named D.E.Code about investment prediction using deep learning

KAGGLE

Got a bronze medal for a kernel given to top 10% contributors for that problem.

HEAD BOY

Titled as the school head boy and the Student Council Head for the year 2015-16.

PROJECTS

PROVOCATIVENESS OF ONLINE NEWS MEDIA

Rating Online Content Based on Toxicity of Its Comments.
There are a plethora of works focusing on detection and classification of online hate. Yet, few studies aim at developing metrics for decision makers to better understand online hate in their social media content. This research undertakes that challenge and introduces provocation score, a measure for hatefulness of online videos, based on hateful comments.

AIRLINE PREDICTION

Creating a recommender system to suggest the next destination of a passenger with his/her basic information such as age, gender, etc. and some information from the passengers' past flight records. Using LightFM and Surprise algorithms.
LightFM is a Python implementation of a number of popular recommendation algorithms for both implicit and explicit feedback.
It also makes it possible to incorporate both item and user metadata into the traditional matrix factorization algorithms. It represents each user and item as the sum of the latent representations of their features, thus allowing recommendations to generalise to new items (via item features) and to new users (via user features).

INDEED RESUME PARSER

Built a web scraper to get resumes from https://indeed.com/ using email accounts as payloads and creating new sessions in some intervals of time making it as humanly as possible, preventing it from getting banned by indeed. Successful in getting about 10k resumes and can get more by just entering job description and location.

CONNECT-4 AI BOT

Implemented an AI bot in C++ to play a Connect 4 game in 3 levels based on depth. Used alpha-beta pruning and Mini-Max Algorithm with heuristic functions.

EYE-TRACKING MODEL

Used python to create a deep learning model to predict where to render images/text on a webpage where the user would notice it.

LINUX SHELL

Implemented a Bash like shell in C that supports piping, i/o redirection, basic linux commands and keyboard interrupts using system calls.

FACEBOOK AD RATING MODEL

A deep learning model to predict the performance of Facebook Ads, using just the information facebook requires while posting and give suggestions for improvements.

SMODEX

Made a few scripts and web crawlers for SMODEX (a startup) to gather some data. Currently working on creating a deep learning NLP model for resume parsing, which can be used to improve hiring policies as well fasten the process of hiring