RADHIKA DUA

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OBJECTIVE

To solve the unsolved problems, to do research with special interest in Image Processing, Computer Vision, Machine Learning and Deep Learning.

EDUCATION

University Institute of Engineering and Technology, Panjab University *August 2015-2019*
B.Tech in Information Technology *GPA: 9.17/10*

St.Ann's Senior Secondary School, Roorkee, Uttarakhand *2014-2015*
Twelth Standard(CBSE) *Aggregate: 90.2%*

St.Ann's Senior Secondary School, Roorkee, Uttarakhand *2012-2013*
Tenth Standard(CBSE) *CGPA: 10/10*

INTERNSHIP

Celestini project India *Jun - Aug 2018*
Summer intern in **Samsung IOT lab** in IIT Delhi for **Celestini project India**, a two-phase project led by Dr. Aakanksha Chowdhery (Princeton University and 2012 Marconi Society Young Scholar) and Prof. Brejesh Lall (IIT Delhi) as directors.

Variance.ai *Jun-Jul 2017*
Summer intern in **variance.ai** in IIIT Hyderabad

ACADEMIC ACHIEVEMENTS

- Awarded the **Grace Hopper Celebration India (GHCI)** 2018 Student Scholarship
- Secured First Position in IT Dept, B.Tech First Year,2015-2016
- Secured Third position in IT Dept, B.Tech Second Year,2016-2017
- Got second prize in **HACK IN THE NORTH** 2017 (largest student hackathon in India)
- Got third prize in **HACK INFINITY** 2017
- Got 6th position in Grand Finale of **India Hacks** 2017 Hackathon
- Speaker at **Software Freedom Day 2017**, Panjab University
- Mentor at **Hacksprint** version2

PROJECTS

Air Pollution Prediction: *June-August, 2018*
A method is proposed to predict the air quality of next 24 hours by predicting the concentration of different air pollutants including sulphur dioxide, nitrogen dioxide , particulate matter for Delhi. Also the major pollutant is determined, which is used to find the source of pollution at different instants of time.

Neural style transfer: *February, 2018*
Style transfer is the technique of recomposing images in the style of other images.

Breathing Rate using camera: *August, 2017*
This is a code written in both Matlab and python based on Eulerian video magnification algorithm. It is computer vision project in which using the camera which can be web camera or mobile camera, the breathing rate of the person can be determined.

Automated irrigation, pests and diseases detection: *November 2017*
This project aims in providing an optimal solution for irrigation. Designed and implemented automated irrigation using Blaney-Criddle Method using Indian Space Research Organization datasets. Predicted pests and diseases using neural networks with temperature, humidity and rainfall as inputs. Validated pests and diseases detection using Convolution neural networks.
Link of web page: https://sites.google.com/view/uiet-hackinfinity/project-description?authuser=0

Heart disease and diabetes detection: *October 2017*
Enhanced the accuracy of heart disease and diabetes detection with neural networks to 95 percent on UCI heart disease and diabetes dataset. Recommended medicines to the patients using drug bank datasets and previous patients history with doctors recommendations in the city using a chatbot.

Aid For Blind: *March 2017*
This is a simple web app which will assist a blind about the view in front of him and accordingly he will be able to take decisions about his motion.This web app will provide a blind person all the conveniences in order to use this app because the communication will be mostly through the speech eliminating the issues of reading or writing. *github link of repository:https://github.com/Kritika4sharma/HINT2017*

Face recognization: *July 2017*
This is a code written in matlab. It is a computer vision project in which the person is matched from the different pictures of the person and other people in different poses and finds the best match.

Pulse rate: *August 2017*
This is a code written in python. It is a computer vision project implemented using Eulerian video magnification which on the basis of subtle color changes on the forehead determines the pulse rate of the person.

Automatic Light system for homes: *August 2017*
To switch on electrical appliances automatically when a person enters the room and when there is no person in the room,the electrical appliances are switched off. Arduino, relay and PIR sensors are used in it.

OPEN SOURCE

Open Source Contribution:
Contributed to Open Source Organization GNOME. Projects for which I reported and fixed bugs includes Gnome-web, Gnome-usage, Gnome-games, Shared-mime info.

TECHNICAL STRENGTHS

Programming Languages	C++, C, Python, CSS, HTML , Matlab, TeX
Technologies and Frameworks	Linux, Git, openCV, Vala, GTK+ TensorFlow, Keras
Business skills	Presentation and Leadership skills.

LINKS

Gitlab	https://gitlab.gnome.org/radhika
Github	https://github.com/Radhikadua123
Linkedin	https://www.linkedin.com/in/radhika-dua-6105a9111
Spoj	https://www.spoj.com/users/radhika 123
HackerEarth	https://www.hackerearth.com/@radhika51
Bitbucket	https://bitbucket.org/radhikadua123/

SELECTED COURSE WORK

Data Structures, Algorithms, Operating Systems, Digital Image Processing, Database Management Systems, Automata, Computer Graphics, Multimedia.
Neural Networks and Deep Learning by deeplearning.ai on Coursera(Percentage:100 %).
Convolutional Neural Networks by deeplearning.ai on Coursera.

POSITION OF RESPONSIBILITY

Campus Ambassador program by GeeksforGeeks(2017-2018)
Fellow Campus Ambassador in Campus Geek Ambassador program by GeeksforGeeks
Codechef Campus chapter UIET(2016-2017)
Speaker at codechef campus chapter UIET