### Abhilasha Jha

### Pre-Final Year Computer Science And Engineering Undergraduate at Vellore Institute of Technology

D-604,LADIES HOSTEL,VIT UNIVERSITY VELLORE-632014 TAMIL NADU,INDIA abhilasha.jha2015@vit.ac.in 9790034764

### **ACHIEVEMENTS**

- □ Have maintained a CGPA of 9.19 over past five semesters and had been awarded with the Certificate Of Merit in Winter Semester 2016 for exceptional academic performance (awarded to ten top ranking students of a given branch every year).
- ☐ Was appointed as Technical Mentor, the member of the board at the Computer Society of India chapter at VIT University.

### **CERTIFICATES**

- ☐ Udemy Web Developer Bootcamp by Colt Steele
- ☐ Udemy Machine Learning A-Z: Hands on Python and R for Data Analysis

### **EDUCATION**

### **Secondary**

### Kendriya Vidyalaya, Air Force Station, Jaisalmer

April 2011 - March 2012

Secured overall 10 CGPA in the CBSE AISSE Examination and A1 grade in all the subjects

### **Higher Secondary**

### Kendriya Vidyalaya, Andrews Ganj, New Delhi

April 2013 - March 2014

Secured 91.2 % in the CBSE AISSCE Examination.

### **SKILLS**

Have had experience of working in

Python,C,C++,Bash,MATLAB,Scikit-learn(the machine learning libraries in python),MySql,Mongodb,Linux(have been using ever since I joined college),HTML,CSS and Javascript.

### **ACADEMIC PROJECTS**

**Turing Machine Simulator**- Theory of computation and Compiler design

Fall Semester 2016

- New data structures were devised to simulate the pointer, the infinite tape and for storage of states.
- The project can viewed at: https://github.com/trinity652/Turing-machine

### Detection of Malicious and Benign Connections in a Network -

**Networks and Communication** 

Winter Semester 2017

- Created a Python tool which detected malicious and benign connections using the Decision Tree algorithm.
- The project can viewed at: https://github.com/trinity652/Desicion-tree-Network-Analysis

# **Energy Efficient Scheduling Of Virtual Machines for Cloud Data Centers** - *Green and Energy Aware computing*

Winter Semester 2017

- Our work focused on visualizing the allocation of virtual machines to the servers as a three dimensional bin packing problem
- We used Javascript and C++ to simulate the same.
- Available upon request.

### **Automated and Smart irrigation system** - Internet Of Things

Winter Semester 2017

- Created an automated and self learning irrigation system to analyze
  the moisture in the soil and take informed decisions like number of
  equipments to keep switched on at a moment using Principal
  Component analysis and inform the farmer using Arduino, Matlab and
  NumPy libraries in Python.
- Available upon request.

# **Detection and Classification Of Skin Cancer using SIFT Feature Extraction and Bag of Visual Words** - Image Processing

#### Fall Semester 2017

- We used the ISIC image archive to model and train our machine learning system. OpenCV and SciKit-learn were used to model the system. Our aim was to classify three major types of Skin Cancers: Melanoma, Basal Cell Carcinoma and Squamous Cell Carcinoma.
- Language used was Python.
- Available upon request.

# Detection of Breast Cancer using Adaptive thresholding and Statistical Feature Extraction and SVM - Neural Networks And Fuzzy Control

#### Fall Semester 2017

- The tumor containing regions were detected using adaptive thresholding and further information about the mammogram was obtained by extracting statistical features.
- The obtained data was used to train the SVM and later the occurence of cancer was predicted using the same.
- Available upon request.

### Recyclotron: Destination to sell your E-Junk- Web Technologies

### Fall Semester 2017

- An E-Waste Buying and Selling website using Mean Stack was created.
- The complete project is open source and can be viewed at: https://github.com/trinity652/Recyclotron

### **Extra-Curricular Activities**

- ☐ Had participated in VIT-MUN 2016 and got a Verbal Mention in the very first conference.
- ☐ Had participated in VIT- Technical Conference 2016 and got a verbal mention and was termed as "Most Eloquent Delegate" by the chairperson.
- ☐ Was called as a guest speaker on the occasion of "Hindi Diwas 2017" on VIT Community Radio for being a poet and Hindi and Urdu poetry enthusiast.

### References

1. Dr Vijayarajan V, Associate Professor(Senior), SCOPE, VIT University