

Harshavardhan Unnibhavi

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- #C327, Amber Hostel, IIT Dhanbad, Jharkhand, India • #19LG HALLI, RMV 2 Stage, Bengaluru-560094 (Permanent Address) • [Github](#)

Education **Indian Institute of Technology Dhanbad, Jharkhand, India** *July 2015 - present*
B.Tech in Electronics and Communication Engineering, Minor in Computer Science
Current GPA: 8.38/10.00

National Public School, Rajajinagar, Bengaluru *July 2013 - March 2015*
12th CBSE board
Total Percentage: 95%

Navkis Educational Centre, Bengaluru *July 2003 - March 2013*
10th CBSE board
CGPA - 9.8

Research Interests

- Deep Learning
- Computer Vision
- Natural Language Processing
- Robotics

Academic Projects

- **Study of Properties of Wavelet transformed image and its implementation** *January 2017- April 2017*
 - Implemented wavelet transform for images in MATLAB
 - Studied the EZW algorithm for image compression
- **Study of optical waveguides and optical interconnects for high performance computing** *August 2016 - November 2016*
 - Studied about Silicon wire and rib waveguides for electronic and photonic convergence and various methods to reduce power loss during transmission of the electromagnetic wave through the waveguide.

Self Projects

- **Cats Vs Dogs** *August 2017*
 - Created a 6 layer Convolutional Neural Network in Tensorflow.
 - Each layer consists of a Convolution, Non-Linearity and Max Pooling.
 - This network was trained on the Cats Vs Dogs dataset found on Kaggle.
 - Achieved an accuracy of 87.5% on the test set and 74.6% on the validation set.
 - The project can be found at this [link](#).
- **Sentiment Analysis on Rotten Tomatoes dataset** *April 2017- May 2017*
 - Converted the training and test dataset into word2vec representation.
 - Applied KMeans clustering to find semantically related clusters.
 - Trained a random forest classifier to produce the predictions.
 - The project can be found at this [link](#).
- **Robot controlled by an AVR ATmega8 Microcontroller** *October 2015*
 - Built a Line follower, Edge and Wall Avoider bot
 - Built a GSM controlled bot using Dual Tone Multiple Frequency (DTMF) signalling

Technical Skills

Programming languages	C, Python, Java, C++
Software Skills	MATLAB, RSoft, AVR Studio, OpenCV
Tools	Git, L ^A T _E X
Operating Systems	Windows, Linux
Libraries	TensorFlow, scikit-learn, numpy
Hardware Skills	Arduino, AVR ATmega8, 8085, TMS320C31 DSK, 31 DSK

Relevant Courses

- Network Theory and Filter Design,Digital Circuits,Signals and Systems,Digital Signal Processing, Microprocessors
- Data Structures,Algorithm Design and Analysis,Linear Algebra,Multivariable Calculus,Vector Calculus,Numerical and Statistical methods
- Machine Learning(by Andrew Ng,Coursera),cs231n(Fei Fei Li and Andrej Karpathy)

Selected Achievements

- Was selected for the KVPY scholarship program from about 150,000 students, conducted by the Indian Institute of Science, Bangalore and the Department of Science and Technology, Government of India. I was declared among the top 1% after a rigorous examination and an interview.(Since 2015)
- I was among the top 1000, selected from a pool of 500,000 students all over the country after clearing the National Talent Search Examination, which is a national-level scholarship program in India.(Since 2013)

Languages known

English(Proficient),Kannada,Hindi