

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 <i>July 2015 - present</i>	
	B.Tech in Electronics and Communication Engineering, Minor in Computer Science Current GPA: 8.38/10.00	
	National Public School, Rajajinagar, Bengaluru <i>July 2013 - March 2015</i>	
	12th CBSE board Total Percentage: 95%	
	Navkis Educational Centre, Bengaluru <i>July 2003 - March 2013</i>	
	10th CBSE board CGPA - 9.8	
Research Interests	<ul style="list-style-type: none">• Deep Learning• Computer Vision• Natural Language Processing• Robotics	
Academic Projects	<ul style="list-style-type: none">• Study of Properties of Wavelet transformed image and its implementation <i>January 2017- April 2017</i><ul style="list-style-type: none">• 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 <i>August 2016 - November 2016</i><ul style="list-style-type: none">• 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.	
Other Projects	<ul style="list-style-type: none">• Cats Vs Dogs <i>August 2017</i><ul style="list-style-type: none">• 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 <i>April 2017- May 2017</i><ul style="list-style-type: none">• 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 <i>October 2015</i><ul style="list-style-type: none">• 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