

Harshavardhan Unnibhavi

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Education	Indian Institute of Technology Dhanbad, Jharkhand, India B.Tech in Electronics and Communication Engineering, Minor in Computer Science Current GPA: 8.28/10.00	<i>July 2015 - present</i>
	National Public School, Rajajinagar, Bengaluru 12th CBSE board Total Percentage: 95%	<i>July 2013 - March 2015</i>
Research Interests	<ul style="list-style-type: none">• Deep Learning, Computer Vision, Robotics, Human-Computer Interaction	
Internship Experience	<ul style="list-style-type: none">• Research Intern, <i>Simon Fraser University, Burnaby, BC, Canada</i> • Worked on Deep Feature Compression for Collaborative Intelligence • Developed a simulator using the Keras framework to simulate the transmission of deep features. • The simulator can be found at, DFTS.	<i>May 2018- present</i>
	<ul style="list-style-type: none">• AI and Reasoning Engine Intern, ZapMyTrip Travel Solutions • Responsible for integrating NLP algorithms to extract contextual and factual information from travel reviews, news articles, into their application.	<i>November 2017- January 2018</i>
Publications	<ul style="list-style-type: none">• H. Unnibhavi, H. Choi, S. R. Alvar, and I. V. Bajic, "DFTS: Deep Feature Transmission Simulator," IEEE Multimedia Signal Processing Workshop (MMSP), Vancouver, BC, Aug. 2018	
Projects: code can be found at the GitHub link	<ul style="list-style-type: none">• EasyTorch • A graphical user interface to PyTorch. • The aim is to create and train/test models by providing a drag and drop interface to the application, leading to faster prototyping, thus accelerating research.	<i>June 2018- Present</i>
	<ul style="list-style-type: none">• End-To-End Text to Speech Model • Design and Implementation of a Text to Speech model in PyTorch using Deep Learning. • It was designed for the Hindi language.	<i>October 2017- December 2017</i>
	<ul style="list-style-type: none">• Cats Vs Dogs • 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. • The project can be found at this link.	<i>August 2017</i>
	<ul style="list-style-type: none">• Sentiment Analysis on Rotten Tomatoes dataset • 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.	<i>April 2017- May 2017</i>
	<ul style="list-style-type: none">• Robot controlled by an AVR ATmega8 Microcontroller • Built a Line follower, Edge and Wall Avoider bot • Built a GSM controlled bot using Dual Tone Multiple Frequency (DTMF) signalling	<i>October 2015</i>
Technical Skills	Programming languages C, Python, Java, C++, 8085 Assembly Software Skills MATLAB, AVR Studio, Git, \LaTeX Operating Systems Windows, Linux Frameworks TensorFlow, PyTorch, Keras Hardware Skills Arduino, AVR ATmega8, 8085, TMS320C31 DSK, 31 DSK	

Relevant Courses

- Signals and Systems,Digital Signal Processing, Microprocessors, Computer Networks, Computer Architecture, Operating Systems(current)
- 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 awarded the Mitacs Globalink fellowship.
- 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)
- 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