

# Anup Anand Deshmukh

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EDUCATION	<b>International Institute of Information Technology, Bangalore.</b> <i>Degree</i> Integrated Masters in Information Technology <i>CGPA</i> 3.27/4 (At the end of eighth semester) <i>Coursework</i> Reinforcement Learning, Advanced Machine Perception, Machine Learning, Automata Theory and Computability, Big Data Algorithms, Advanced Cryptography, Linear Algebra, Signal Processing, Data Structures - Algorithms, Programming	May 2019
INTERESTS	Recommender Systems and Deep learning in Computer Vision	
RESEARCH EXPERIENCE	<b>A Minimax Game for User Satisfaction in Recommender Systems</b> <i>Multimodal perception lab at IIITB</i> <ul style="list-style-type: none"><li>Formalizing the Minimax game, which can potentially model generator in Generative Adversarial Networks - GAN's, to give unexpected yet relevant recommendations.</li></ul> <b>A Scalable Clustering Algorithm for Serendipity in Recommender Systems</b> <i>Accepted in the ICDM workshop - SAREC 2018</i> <ul style="list-style-type: none"><li>Designed a clustering technique (SC-CF) that efficiently tackles the problem of high sparsity and overspecialization in collaborative filtering by effectuating serendipity.</li></ul> <b>Fast and Provable Concept Decompositions in Large Text Corpus</b> <i>Under review as a conference paper at ACML 2018</i> <ul style="list-style-type: none"><li>Experimentally validated proposed SPKM-MCMC algorithm by considering the spherical clustering problem for large sparse document collections.</li></ul> <b>Scaling up Simhash</b> <i>Under review as a conference paper at AAAI 2019</i> <ul style="list-style-type: none"><li>Proposed a dimensionality reduction sketching algorithm - simsketch - which maintains an estimate of the cosine similarity between original real valued vectors.</li></ul>	Ongoing <i>Guide: Prof. Dinesh Babu</i>  Jan 2018-Aug 2018 <i>Guide: Prof. Shrisha Rao</i>  Sept 2017-April 2018 <i>Guide: Dr. R. Pratap</i>  Jan 2018-April 2018 <i>Guide: Dr. R. Pratap</i>
WORK EXPERIENCE	<b>Perception of emotions from Audio Signals</b> <i>Intern at FAST lab-CentraleSupélec, Rennes-France</i> <ul style="list-style-type: none"><li>Analyzed different set of acoustic features which are designed to detect the perceptual content of audio with Convolutional Neural Network in focus. Modelling the human stress in the emotion space learnt by CNN's.</li></ul> <b>CNN based Spatio-Temporal Features of Crowd Models</b> <i>Intern at Murdoch University, Perth-Australia</i> <ul style="list-style-type: none"><li>Worked on a problem of crowd counting which used conditional GAN by extending it to crowd datasets like SHOCK and WIDER FACE.</li></ul> <b>SlicePAY (formerly Buddy), Bangalore, India</b> <i>Full Stack Developer</i> <ul style="list-style-type: none"><li>Built the browser extension using JavaScript which gave access to the SlicePAY's payment plans right from user's merchant website. Link: <a href="#">SlicePAY's chrome extension</a></li></ul>	Ongoing <i>Guide: Prof. Renaud Seguier</i>  May 2017-July 2017 <i>Guide: Prof. Ferdous Sohel</i>  May 2016-July 2016
COURSE PROJECTS	<b>Merge LSTM model for Image Description Generation</b> <i>Research Elective, IIITB-India</i> <ul style="list-style-type: none"><li>Analyzed and built the retrieval based model using Keras and Tensorflow on the construction which uses both LSTM's for language modelling and CNN's for generating image representation.</li></ul> <b>Automated Essay Scoring with Cross Feature Vector Generation</b> <i>Course: Machine Learning I</i> <ul style="list-style-type: none"><li>Designed and implemented the Intelligent Text Rater(ITR) with the proposed novel approach of feature vector generation of text essays which significantly reduces the required training data size.</li></ul>	August 2017-April 2018 <i>Guide: Prof. Dinesh Babu</i>  August 2017-Dec 2017 <i>Guide: Prof. G Srinivasa R.</i>
SKILLS	<i>Languages</i> Python(Keras, Tensorflow), C++, JScript <i>Tools</i> Matlab, Latex	
ACADEMIC ACHIEVEMENTS	2016 Winner of the Hackathon held in IIIT-B as part of the Signal Processing course. 2016 Designed and created an Intellectual Property Management Portal for IIIT-B. 2014 Top 1% in Maharashtra State's Higher Secondary School Certificate (HSC) exam. 2012 Secured All India Rank 940 in International English Olympiad.	
LEADERSHIP	2018 <b>Teaching Assistant</b> , for the course Theory of Automata and Computations at IIITB 2018 <b>Academic Support</b> , at <a href="#">Make A Difference</a> teaching basic sciences to underprivileged students. 2014-2017 <b>Curator</b> , TEDx IIITB; <b>Co-Founder</b> , IIITB 'Comic Club' 2014 <b>Social Media Team</b> , Microsoft TechEd 2014	