

Akanksha Bindal

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Senior undergraduate, Department of Computer Engineering
Delhi Technological University (formerly Delhi College of Engineering)

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Education	Bachelor of Technology in Computer Engineering (COE)	80.9%	Aug 2012-July 2016
	Delhi Technological University, Delhi, India	(Ranked in top 5 %)	(Expected)
	Class XIIth	95.6 %	2012
	Abu Dhabi Indian School, Abu Dhabi, UAE	School Topper	

Awards and Honours	▪ Ranked in top 5 % of Computer Science Department in all three years and top 4 % in class.	
	▪ Certificate of Merit and Scholarship by Abu Dhabi Government for securing school topper position in grade 12 and grade 10	2012 & 2010
	▪ Certificate of Merit , National Physics Olympiad, for ranking in top 2% of participating students	2011
	▪ Student Body Head Girl	2011-2012
	▪ Certificate of Proficiency in French , DELF Examination	2010
	▪ Academic Excellence Award and Best Student Title , Abu Dhabi Indian School	2011-2012

Internships	I. Signal Processing & Bio-Medical Imaging Lab (SBI) Indraprastha Institute of Information Technology, Delhi, India Advisor: Prof. Chetan Arora & Prof. Anubha Gupta	Jan '14 - Present
	<ul style="list-style-type: none"> Developed algorithm to segment MR structures using Deep Learning architectures Implemented denoising based sparse stacked autoencoder using Theano on K20 GPU accelerator Temporal segmentation of egocentric videos using convolutional neural networks 	
	II. Robotics & Machine Intelligence Lab Delhi Technological University, Delhi, India Advisor: Prof. S. Indu	Oct '14 - Present
	<ul style="list-style-type: none"> Digitization of palm leaf inscription images to retrieve highly correlated text for project sponsored by Department of Science & Technology, Govt. of India Used non linear PCA. Comparison with fast-ICA, linear PCA and NGFICA techniques Designed mobile alarm dialer robot using DTMF technology with password protection to detect temperature changes in surroundings. 	
	III. SanDisk, Bangalore, India	Jun-Aug, 2015
	<ul style="list-style-type: none"> Developed a self-organizing file management system based on a particular theme as selected by user: <i>timeline</i> or format based, using C# on Visual Studio Developed an Android Application for file organization on the mobile phone which is now into its alpha testing phase. Wrote python scripts to improve system debug process. 	
	IV. Leaf Innovation, Delhi, India (College startup rated as top 10 in upcoming startups Outlook India 2014 edition)	Dec-Feb, 2015
	<ul style="list-style-type: none"> Worked on Backend technology. Deployed a REST api, built on Node JS using Express framework, MongoDB (NoSQL) database and mongoose library. Integrated and successfully implemented Android Push Notifications using Google Cloud Messaging API. Deployed services on AWS Amazon (EC2) cloud and S3 modelled on PaaS. Helped in SAFER device design by integrating heat sensor on the arduino pro board. 	

Academic Projects	HYBRID RECOMMENDER SYSTEM - Here		April 2015
	<ul style="list-style-type: none"> Designed a recommender system targeted to problems of cold start & sparsity Uses weighted combination of Factored Item Similarity Model as collaborative filtering, SGD as content-based filtering and Euclidean similarity as demographic filtering 		
	SMS CLASSIFIER APP- Here		Dec 2014
	<ul style="list-style-type: none"> Spam/ham classifier Android App with complete UI and working SMS module Naive Bayes model for probabilistic learning is implemented in R. Achieved highest marks in class 		
	FEATURE BASED IMAGE CLASSIFIER - Here		Nov 2014
	<ul style="list-style-type: none"> Image matching on CalTech dataset based on SIFT, SURF features Found increased accuracy upto 91% with RBF based SVM 		
	CRAWLER FOR MOBILE APPS		Oct 2015
	<ul style="list-style-type: none"> Developed data pipeline for processing data crawled on Python using Scrapy from Android apps. Pipeline includes data cleansing, analysing and deleting obsolete apk data 		
Technical Skills	Languages	Proficient : C/C++, C#, R, Python Familiar : Java, Html ,CSS, JavaScript, JQuery, NodeJS	
	Operating Systems	Linux, Android	
	Application/SDK	OpenCV, Matlab, Octave, Eclipse IDE, RoboMongo, LaTeX, Qt Theano, Caffe, Lasagne	
	Application Server	Apache, MySQL	
Academic Courses	Computer Engineering	–Data Structures – Distributed Computing – Artificial Intelligence – Mobile Computing – Compiler Design – Information & Network Security – Computer Architecture I, II – Computer Graphics – Digital Image Processing – Theory of Computation – Computer Network – Database Management Systems	
		–Microprocessors & Interfacing –Operating Systems –Algorithm Design & Analysis Basic Sciences – Physics I & II – Mathematics I, II, III, IV – Chemistry I & II Other Engineering Courses – Engineering & Machine Drawing – Industrial and Organisation Managerial – Economics	
Test Results	GRE: 333/340 (Verbal: 163/170, Quantitative: 170/170, Analytical Writing: 5.5/6)		Apr, 2015
	TOEFL: 116/120 (Reading: 30/30, Listening: 30/30, Speaking: 27/30, Writing: 29/30)		Sept, 2015
Membership	<ul style="list-style-type: none"> The Society of Robotics (SR). The Computer Society of India (CSI). 		
Technical Publication	<ul style="list-style-type: none"> Bindal, Akanksha, "Digitization of Palm-leaf Inscription Images using Non Linear Principal Component Analysis", <i>DTU archives</i>, To be sent to Winter School of Computer Graphics 2016 Bindal, Akanksha, "Map vs Unordered Map: An Analysis on Large Datasets", International Journal of Computer Applications, 127(2):5-9, October 2015 - Here Bindal, Akanksha, "Evaluation of Traditional and semantic-based Search Engines", National Conference on Applications of Computing in Research, New Delhi, 2014 - Here 		
Extra Curricular Activities	• Editor , DTU Times, Official Newsletter of DTU		Oct, 2014
	• Technical Head , Software Engineering, the Society of Robotics, DTU		Feb, 2015
	• Editor-in-Chief , CSI-DTU chapter.		Feb, 2015
	• Captain , Table Tennis DTU Girls		Jan, 2015
	• Community service : Stop Hunger Now(Packaging meals), Anubhav Shiksha Kendra (Teaching Underprivileged children), Wake the Lake program–Tree Plantation Drive		June, 2015