

AMITOJDEEP SINGH
Course : M.Sc. (Hons.) + B.E. (Hons.), Economics
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CGPA : 9.03

ACADEMIC DETAILS					
COURSE	SPECIALIZATION	INSTITUTE/COLLEGE	BOARD/UNIVERSITY	% CGPA	YEAR
CLASS X		St. Joseph’s Sr. Secondary School, Chandigarh	All India Secondary School Examination (C.B.S.E. Class 10)	95	2012
CLASS XII	Non Medical	Stepping Stones Sr. Secondary School, Chandigarh	All India Senior School Certificate Examination (C.B.S.E. Class 12)	92.4	2014

ELECTIVES/TECHNICAL PROFICIENCY	
Electives	Operating Systems,Data Structures And Algorithms,Design and Analysis of Algorithms,Machine Learning,Neural Networks and Fuzzy Logic,Information Retrieval,Object Oriented Programming,Information Retrieval
Technical Proficiency	Skills: Linux,C Programming,NumPy,Android Studio,Python,SQL,Machine Learning,C++ Language,Java,Deep Learning

SUMMER INTERNSHIP / WORK EXPERIENCE	
Software Development Intern, Yrals Digital, Mumbai	May 2016 - Jul 2016
Content Aware Image Processing using PIL and OpenCV for live execution on the media engine. Data extraction and smart content generation using Beautiful Soup , NER , NLTK and dbpedia .	
Summer Research Intern, Central Scientific Instruments Organisation (CSIR-CSIO)	Jun 2017 - Jul 2017
Deep Convolutional Neural Networks for Traffic Sign Recognition using VGG like CNN on GTSRB dataset, adapted for Indian traffic signs using transfer learning. Achieved 99.38% accuracy and 7th rank internationally on GTSRB beating all human performance based approaches.	

PROJECTS	
Multi-person Yoga Activity Estimation for Real Time Video	Jan 2018 - Apr 2018
OpenPose for keypoint extraction, 95.7% accuracy using CNN for frame-wise predictions, 92.8% accuracy using time distributed CNN and LSTM for temporal predictions on video sequences, real-time implemetation for linux and windows machines.	
Going Deeper in Facial Expression Recognition using Deep Neural Networks	Mar 2018 - Apr 2018
Implemented the Inception Layers of GoogleNet for local and global feature extraction using Keras Functional API , improved the top-2 to accuracy 77.5% and top-1 accuracy to 61.4% by using data augmentation, batch normalization and dropout.	
Compiler Construction	Jan 2018 - Apr 2018
Developed a compiler for a language for basic arithmetic, string and matrix operations was developed in C using hash tables , trees and stack optimally.	
Semantic Similarity Analyser and Predictive Typing System	Oct 2017 - Dec 2017
Manhattan LSTM to predict semantic similarity of two query phrases, Google word2vec to generate embeddings of query phrases, achieved an accuracy of 80.35% on Quora Duplicate Questions Dataset. Compared Semantic Similarity based predictions to traditional word predictors.	
Multimodal & Multitask Neural Networks for Stock Price Prediction	Aug 2017 - Dec 2017
Used two branches of LSTM taking both Price data and News Headlines as inputs to achieve prediction accuracy of 74.93% for price movement direction and MSE of 0.0017 for volatility.	
Adaptive Template Update for Constructive Fingerprint Identification	Apr 2017 - Dec 2017
Mosaicked the minutiae points using Thin Plate Spline to mimic natural deformation, high confidence fingerprints to update the database , achieved 100% CRR and 20% EER for fingerprints on FVC 2004 database.	

POSITION OF RESPONSIBILITY	
Economics And Finance Association, BITS Pilani	May 2016 - May 2016
Financial Head	
Raised, managed and allocated funds & resources for the semester events and year around operating expenses, led a team of 40+ members.	

EXTRA CURRICULAR ACTIVITIES
