

ARNAV ARORA

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EDUCATION

Jul'13 - May'17	Bachelor of Technology, GPA: 8.71/10
School	SRM Institute of Science and Technology
Coursework	Advanced Calculus and Complex Analysis, Artificial Intelligence, Probability and Queuing Theory, Discrete Mathematics, Programming Language Design and C programming, Object Oriented Programming, Data Structures and Algorithms, Statistical and Numerical Methods, Theory of Computation, Compiler Design, Cryptography and Network Security, Linux Internals, Operating Systems

FELLOWSHIPS

Mar'18 - May'18	Fast.ai 2018 International Fellow Fr-En seq2seq Neural Machine Translation with Teacher Forcing and Attention, Bedroom and horse->zebra image generation with WGANs and CycleGANs, Object Detection using SSD/YOLOv3, Neural Style Transfer, Super-resolution with UNets, SotA IMDB sentiment analysis in under 10 epochs, Collaborative Filtering, Language Modeling, Cats vs Dogs transfer learning classification
May'16-Jun'16	Institute of Mathematical Sciences - Visiting Summer Student (Theoretical Computer Science) <ul style="list-style-type: none">Was introduced to various techniques to find approximate solutions to NP-complete problems in polynomial time.Studied First Order and Monadic Second Order logic and its integration with Tree and Graph automata.

WORK EXPERIENCE

Jul'17-Feb'18	Hitachi Consulting - Technology Consultant <ul style="list-style-type: none">Wrote backend services in node, express js, angular modules to handle storage, scheduling and analysis of patient data.Handled Full Stack Development (MEAN) for a number of RESTful Web services.
Jun'17-Jul'17	Aspiring Minds - Research Intern <ul style="list-style-type: none">Wrote sparse autoencoder model for movement and body language detection in video leading to over 5% increase in accuracy.Created an automated question generator from textbook chapters using Gensim, word2vec, WordNet and NLTK from the ground up. Extractive summarization and Distractor generation.
Jun'15-Jul'15	Hughes Communications India Limited - Engineering Assistant (VSAT technology) <ul style="list-style-type: none">Assisted in installation of VSAT antennas in ATM machines.Implementation of modulation and multiple access techniques like TDMA, CDMA and FDMA.

ACADEMIC PROJECTS

May'18 - Jun'18	Sarcasm Detection (<i>Pytorch, Fastai, Scikit-learn</i>)
Description	Text classification using a pre-trained Wikitext-103 language model (AWD-LSTM). Fine tuning on 120,000 examples from thesarcasmdetector using AdamW and cyclic learning rates. Applied attention mechanism to increase the achieved accuracy of 93%.
Mar'18 - Apr'18	Plant Seedling Classification (<i>Pytorch, Scikit-learn, OpenCV</i>)
Description	Public score of 97.86 to reach top 30 submissions for the Plant Seedling Kaggle competition for classification of images into 12 categories of plant seedlings. Resnet50 architecture pretrained on ImageNet.
Jan'17 - Mar'17	Text Generation with Deep Learning (<i>Python, Keras, Floydhub</i>)
Description	Poetry and song lyric generation of the works of the Beatles, Nietzsche, William Wordsworth using Variational Autoencoder and GRU-RNN. Character modeling.
Feb'16 - Apr'16	Mood based Music Player (<i>R, Xampp, MySQL, PHP, BootStrap</i>)
Description	Song mood prediction and recommendation using lyrics, valence, dancability and other metadata scraped from Spotify, Genius and Gracenote APIs. Data cleaning and implementation of classification algorithms like SVM, Naive Bayes using e1071 library. Deployment of the trained model on a live website.

EXTRA CURRICULAR

- PyData Delhi co-organizer, budding guitarist, philosophy aficionado, learning Japanese (elementary proficiency)

TECHNICAL SKILLS

Languages - Python (proficient), R, C++, Java
Miscellaneous - Jupyter, MongoDB, PostgreSQL, GCP

ML Frameworks - Pytorch (proficient), Fastai, Tensorflow, Keras, Scikit-learn
Web Technologies - Nodejs, Angularjs