**Animesh Anant Sharma**

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### EDUCATION

**Columbia University** New York, NY

*M. S. in Computer Science (Machine Learning Track)*  Expected Dec/2018

**Indian Institute of Technology Roorkee** Roorkee, India

*B. Tech. in Electrical Engineering,* GPA 8.54/10.0 May/2017

* Relevant Courses: Artificial Neural Networks, Machine Learning

**TECHNICAL SKILLS**

**Programming Languages:** Python, C++, C, MATLAB, SQL,HTML, CSS, VHDL

**Tools & Technologies:** GNU/Linux (Ubuntu), Torch, Tensorflow, OpenCV, dlib, Git, MySQL, LATEX, Eagle, NI LabView

**PROFESSIONAL EXPERIENCE**

**Samsung Research Institute Bangalore** Bangalore, India

*Research Intern*May 2016 - Jul 2016

* The goal was to predict call drops efficiently and effectively; approach of the adaptive filter was incorporated in online BPTT and coding was done on MATLAB.
* This technique, which is used in signal processing, changed the transfer function with error feedback as and when the complete information was available; NMSE error was -42.23 dB for the final architecture.

**Department of Computer Science, Indian Institute of Technology Kanpur** Kanpur, India

*Research Assistant* Jun 2015 - Jul 2015

* Started with the basics of machine learning and then the internship involved learning and application of different algorithms like linear regression, logistic regression, neural networks and support vector machines.
* These were tested on datasets involving recognition of postal codes, movie ratings and image compression.

### PROJECT EXPERIENCE

**Indian Institute of Technology Roorkee** Roorkee, India

*Development and Testing of a face recognition system* Jul 2016 - Apr 2017

* The attendance system of a classroom was automated using the developed system; the simple technique of eigenfaces was implemented for purpose of learning.
* Face landmark detection was done using dlib and OpenCV was used for preprocessing; CNN was used to get feature vector so that SVM can be used to classify the extracted information; the technique was similar to the one used in OpenFace project and later an application was developed for real time testing in classrooms.

*Univariate very short term and short term forecasting of solar irradiance using modified online BPTT* Jul 2016 - Sep 2016

* The goal was to predict the solar irradiance values for multiple look ahead predictions with time intervals as small as 15 minutes; online form of back propagation through time was implemented on MATLAB.
* The performance of the proposed network was tested comprehensively using two years of data and it outperformed the persistence model and the normal recurrent network; Research paper presented at the 20th IEEE International Computer Science and Engineering Conference (ICSEC), 2016.

*Time-series prediction of rainfall in rural India with SVM and comparison with MLP* Mar 2016 - Apr 2016

* The time series prediction of rainfall was done using SVM and MLP; conventional models based on various climatic features were also constructed using SVM and MLP.
* Among these four models the conventional model constructed using SVM appears to be the best solution with a mean absolute error of 13.66; project was implemented using MATLAB.