

SUMMARY	Computer Scientist working in Machine Learning with 8+ years research experience seeking full-time	
EDUCATION	Northwestern University , Evanston, Illinois USA	Jul '19
	Ph.D. Candidate, Computer Engineering	(expected)
	Master of Science, Computer Science	Sep '14
	Birla Institute of Technology & Science , Pilani, Rajasthan India	
	Master of Engineering (with Honors), Software Systems	May '12
	Bachelor of Engineering (with Honors), Chemical Engineering	Dec '09
PROGRAMMING SKILLS	Proficient: Python, Keras, Scikit-Learn, NLTK, Gensim, Tensorflow, Selenium, XGBoost Familiar: OpenCV, PySpark, R, MATLAB, C, C++, Java, SQL, weka, Javascript, HTML, CSS	
SELECT PROFESSIONAL EXPERIENCE	<i>Data Science Intern</i> , Northwestern Mutual , Milwaukee, Wisconsin	Jun - Aug 2018
	<ul style="list-style-type: none"> ◊ Developed distributed image to text conversion algorithms from scanned questionnaires ◊ Designed a noise reduction algorithm to denoise scanned and photocopied questionnaires 	
	<i>Research Intern</i> , Boeing Cybersecurity (Narus) , Sunnyvale, California	Jun - Sep 2013
SELECT RESEARCH PROJECTS	<ul style="list-style-type: none"> ◊ Generated synthetic profiles with different demographic features for comparing ads across profiles ◊ Developed a machine learning model for predicting user demographics and interests from ads 	
	<i>Research Assistant</i> , Northwestern University , Evanston, Illinois	2012 -
	<ul style="list-style-type: none"> • Deep Learning-based Predictive Model for Additive Manufacturing (Tensorflow, Keras) <ul style="list-style-type: none"> ◊ Created time series models for temporal analysis of heat flux data ◊ Investigated Recurrent Neural Network models to predict point-wise temperature information for accelerating additive manufacturing simulations • Solar Cell Efficiency Prediction using Molecular Fingerprints (Tensorflow, Scikit Learn) <ul style="list-style-type: none"> ◊ Developed a multi-input input neural network architecture by merging different molecular representations as inputs for predicting chemical properties that outperformed other state-of-the-art models ◊ Designed Ensemble and Deep Neural Network models for predicting power conversion efficiency of solar cells using chemical fingerprints, and achieved mean square percentage error between 1.5-2 % • Ensemble Learning-based Guided Optimization for Aircraft Design (MATLAB, Python) <ul style="list-style-type: none"> ◊ Created intelligent sampling algorithms to explore the constrained search space for candidate microstructures (constrained non-convex optimization problem) ◊ Achieved 100x more solutions compared to state-of-the-art methods that can accelerate the design-to-experiment life-cycle • Convolutional Neural Nets for Thematic Image Classification in Pinterest (Keras, Theano) <ul style="list-style-type: none"> ◊ Harnessed Association Rule Mining for thematic label curation ◊ Developed ConvNet Models for hierarchical classification that led to automated image categorization based on themes • Classification of Anonymous Posts using Urban Dictionary (Scikit Learn, Keras) <ul style="list-style-type: none"> ◊ Developed custom vector representations using crowd-sourced (Urban Dictionary) & psycho-lingual (LIWC) dictionaries (Gensim) ◊ Attained prediction accuracy of 79.8 % and 78.1 % using ensemble models and LSTMs respectively 	
SELECT TEACHING & LEADERSHIP	<i>President/Vice-President/Treasurer</i> , Northwestern Toastmasters	Sep '15 - May '18
	<ul style="list-style-type: none"> ◊ Lead the Northwestern chapter of Toastmasters; over 30 graduate students, post doctoral fellows from 10 departments ◊ Organized 1.5 hour weekly meetings to improve student public speaking skills 	
	<i>Teaching Assistant & Guest Lecturer</i> , Northwestern University	Jan '14-
FELLOWSHIPS	McCormick Dean's Commendation Fellowship	'18 Spring
	Predictive Science and Engineering Design Fellowship	'16-'17
	Segal Design Fellowship	'14-'15
SELECT PUBLICATIONS (3 OF 14)	Walter P. Murphy Fellowship	'12-'13
	<p>“Transfer Learning Using Ensemble Neural Nets for Organic Solar Cell Screening”, <i>International Joint Conference of Neural Networks</i>, 2019</p> <p>“CheMixNet: Mixed DNN Architectures for Predicting Chemical Properties using Multiple Molecular Representations”, <i>NeurIPS</i>, 2018</p> <p>“ElemNet: Deep Learning the Chemistry of Materials From Only Elemental Composition”, <i>Nature Scientific Reports</i>, 2018</p>	