

Deborshi Goswami

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Master of Science candidate in Advanced Analytics at the University of Illinois at Urbana-Champaign. Looking for a full time role in Data Science starting June-Aug 2019. Prior industry experience in Data Science and Machine Learning as an intern at Autodesk. Currently researching in Deep Learning. Passionate about Data; likes to glean insights hidden in data that can't possibly be Googled.

Education

University of Illinois at Urbana-Champaign

Master of Science | Advance Analytics (Industrial Engineering) | GPA 3.6/4.0

May 2019

M.S. Ramaiah Institute of Technology

Bachelor of Engineering | Mechanical Engineering | GPA 8.9/10

June 2017

Experience

Data Scientist Intern | Autodesk Inc.

San Francisco, CA | May - Aug 2018

- Mined relevant text data from unprocessed customer support call and chat transcripts
- Identified key communities of customer support issues using Clustering and Topic Modelling on vectorised embeddings of text
- Enabled preemptive troubleshooting and Helpdesk resource allocation using visualizations of insights gained from clustering operation
- Assembled training dataset for supervised learning using text cluster labels obtained from the previous step
- Built Text Classification pipeline for Customer Intent Prediction during Helpdesk Support operations

Graduate Researcher - Deep Learning | Dept. of ISE

UIUC, IL | Ongoing

- Designing lightweight Capsule Network Architectures for complex image recognition tasks on Pytorch
- Developed Residual Capsule layers for learning complex features in an image; 4% increase in accuracy over CNN of comparable depth
- Optimizing effectiveness of Dynamic Routing protocol in Capsule Networks

Graduate Mentor - Analytics | Illinois Geometry Lab

UIUC, IL | Aug - Dec 2017

- Led a 10 man team to develop safety-critical-object recognition algorithms for vehicles using Deep Learning; Presented at Microsoft CSL Conference 2018, UIUC
- Implemented Licence Plate Blurring system to maintain privacy of vehicle owners.

Project Engineer - Image Sensing | TartanSense

Bangalore, India | Jan - June 2017

- Designed image acquisition system in Autonomous Ground Rover for Agricultural Surveillance.
- Built simple payload mounting systems that enabled delivery of product in half the budget allotted

Projects

Deep Learning	Implemented Region Proposal Network for Object Detection using Faster R-CNN; Implemented four step non-approximate method for training of Faster R-CNN (Academic)
Big Graph Clustering	Implemented Compressive Approximation on Spectral Clustering to cluster Large Social Networks into communities at 10% of time expenditure compared to traditional spectral clustering(Academic)
Data Analysis	1. Mined traffic accident data published by Chicago PD to collect critical insights on accident proneness in Chicago 2. Wrangled UNHCR's data on worldwide immigration statistics to examine trends during Global Refugee Crises
Data Visualization	Built Interactive Visualization displaying state-wise Mental Health Statistics in the United States.
Time Series	Predicting future progress of development indicators outlined in UN Millennium Development Goals
Predictive Modelling	Engineered novel representations of bucketed variables in feature space of APS Brake Failure Dataset; built classification model to predict brake failure.

Skills

Machine Learning	Regression (Lasso, Elastic Net), SVM, Random Forest, Gradient Boosting, Clustering, PCA, SVD, Deep Learning, Time Series Analysis, KNN, Topic Modelling
Programming	Python(ScikitLearn, Pytorch, Pandas, numpy), R, C++, GIT, Bash-Uinx, MATLAB, SQL, AWS Sagemaker

Courses

Statistical Learning, Deep Learning, Algorithms of Data Analytics, Statistics of Big Data And Clustering, Optimization for Machine Learning, Design of Experiments, Stochastic Processes

Recognitions

- Edhitha Unmanned Aerial Systems - Placed 1st among 55 international teams (2015) and 5th among 43 teams (2016) at Students Unmanned Aerial Systems competition, Maryland, USA. (Undergraduate)
- Awarded best Senior Engineering Project among 80 projects (Undergraduate)