Chetan Kumar

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INTERESTS

Deep Learning, Computer Vision, Transfer Learning, Data Visualization

EDUCATION

M.S in Data Science May, 2018
University of Massachusetts, Dartmouth 3.81/4.00
M.S in Computer Science June, 2016
Shaheed Zulfikar Ali Bhutto Institute of Science and Technology, Karachi 3.45/4.00
B.S in Computer Science June, 2014
Shaheed Zulfikar Ali Bhutto Institute of Science and Technology, Karachi 3.26/4.00

WORK EXPERIENCE

University of Massachusetts, Dartmouth – Data Analyst (Department of Nursing Sciences) September 2017 – Present

- Responsible for development of prediction model for successful NCLEX-RN candidates using Nursing Admissions Data and Courses Grade Sheet

Web Enthusiasts – Software and Web Developer June 2014-October 2015

- Responsible for Design, Development, Deployment and Maintenance of Software and Web Applications

Wi-tribe -Internee- Information Technology (IT) Department June 2013 – August 2013

- Worked as IT Assistant and Responsible for Troubleshooting of Computers, Printers and other hardware

Pakistan Telecommunication Limited -Internee- Pakistan Internet Exchange June 2012 – August 2012

- Responsible for Design and Development of Web Portal with Database to transfer their Spread Sheet Data over databases for their internal use

SKILLS

- **Programming Languages:** Python, R, Matlab, HTML/CSS/JS, C(Parallel Programming) , C++
- **Data Tools:** Tableau, Numpy, Pandas, D3, RapidMiner, MySQL
- **Machine Learning Packages:** Keras, Tensor Flow, LibSVM
- **Other Tools:** Git, Latex, Linux, Windows

Research Experience

- **Conference Papers**
  - Deepak Kumar, Chetan Kumar, Ming Shao, **Cross-Database Mammographic Image Analysis through Unsupervised domain adaption**, 2nd International Workshop on Big Data Transfer Learning in Conjunction with IEEE Big Data Conference, 2017.
- **Workshop Presentation**
  - Oral Presentation on Cross-Database Mammographic Image Analysis through Unsupervised domain adaption in **2017 New England Computer vision workshop** held at Northeastern University, Boston
- **Thesis**
  - **Sentiment Analysis of Roman Urdu Text:** Novel approach for writing Roman Urdu Text was proposed based on English Phonetics and Heuristics were developed to normalize Roman Urdu Text into a normalized format. Polarity level of the text is defined after processing through Levenshtein algorithm.

Professional Services

- **Conference (External) Reviewer**
  - Association for Advancement of Artificial Intelligence (AAAI) 2018

Academic Projects

Data Warehousing and Business Intelligence: Compare the query execution time using the Materialized views and cubes**,** TPC-H queries are used materialized views and cubes are created, and convert to TPC –H queries to MDX queries to access the cubes Data.

Data Mining and Business Analytics: Worked on **KKBox's Churn Prediction Challenge** from Kaggle.com, to explore data using different visualization to find out which variables are significant in predicting churn. Used different machine learning approaches to make a model of churn prediction on the given data.

Data Visualization: Worked on **H-1B Visa Petitions** data set from Kaggle.com. Visualized data for number of visa petitions from all over the US, Number of applicants in each job category in each state, Number of incoming international students and number of visa petitions each year.

URL: http://htmlpreview.github.io/?https://github.com/chetankm1992/visualizationProject/blob/master/index.html

Computational Reproducibility: Reproduced Paper **"Real Time Robust L1 Tracker Using Accelerated Proximal Gradient Approach"** using Matlab and Reproduced Papers **"Incremental Learning for robust visual tracking"** and **"Real-time tracking via online boosting"** for Comparing Experimental Results. Drawn relationship between Original Results and Reproduced Results by producing Charts and Table of the Experiments Performed.

Text Processing and Text Mining: Jupyter Notebook was configured on Stampede (Super Computer) to access it on local machine for performing the text processing and text mining on unstructured data using the Python NLTK library

URL: https://github.com/chetankm1992/DSC-520-HPC/blob/master/final-DSC520.ipynb