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Hammad A. Usmani

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EDUCATION

University of Central Florida – *B.S. Computer Science* *December 2016*
HBX | Harvard Business School – *CORe: Credential of Readiness, Pass* *July 2017*
Udacity – *Machine Learning Engineer Nanodegree+* *February 2018*

SKILLS

Programming Languages: Python, R, Hadoop, Java, C++, SQL, MongoDB, JavaScript (MEAN), UNIX, VBA
Machine Learning: Supervised Learning, Unsupervised Learning, Reinforcement Learning, Deep Learning
Big Data: Algorithms, Data Modeling, Data Analysis, Data Streaming, Hadoop, Apache Spark, HDFS, Yarn

PROJECTS

Deep Learning: Convolutional Neural Network – hammad93.github.io/deeplearning *December 2017*
- Trained and compiled an image classifier from a custom CNN architecture and transfer learning from ResNet50.
- Developed sequential architecture with convolutional, max pooling, and global average pooling layers.
- Classified images with an 81.0% accuracy after 20 epochs on a p2.xlarge AWS EC2 instance on a NVIDIA K80 GPU.

Unsupervised Learning: Creating Customer Segments – hammad93.github.io/unsupervised *October 2017*
- Analyzed a dataset containing data on various customers' annual spending amounts using Anaconda and Python.
- Calculated Principal Component Analysis, K-Means Clustering, Gaussian Mixture, biplots and cluster visuals.
- Evaluated models using silhouette coefficient with a top result of 0.4263 and clustered customers appropriately

Supervised Learning: Targeting Customer Segments – hammad93.github.io/supervised *September 2017*
- Employed several supervised algorithms to accurately model individuals' income using Anaconda and Python.
- Computed Gaussian NB, K-Neighbors, Ensemble (Bagging, AdaBoost), SVM, and Decision Tree models.
- Optimized model using grid search with a final evaluation accuracy score of 0.8660 and F-score of 0.7451

Big Data Management Tools – github.com/bdmt *April 2016*
- Developed software for administration of Hadoop, HUE, Apache Ambari, Spark, YARN, Pig, and HIVE.
- Programmed administration metrics and visualizations by utilizing Node.js, AngularJS, and ChartJS.
- Delivered tools with research and development team for University of Central Florida affiliated use

Publication in *Journal on Systemics, Cybernetics and Informatics: JSCI* *June 2016*
- Surveyed and sampled 507 responses and conducted regression analysis, hypothesis testing, and other metrics
- Accomplished the best 20%-25% paper at the *World Multiconference on Systemics, Cybernetics, and Informatics*
- Almalki, H. M., L. Rabelo, Dr, C. David, Dr, and H. A. Usmani. "Analyzing the Existing Undergraduate Engineering Leadership Skills." *Journal on Systemics, Cybernetics and Informatics: JSCI (2016)*: vol. 14, pp. 35-39

PROFESSIONAL EXPERIENCE

Simpluris – *Data Analyst* **Orlando, FL** | *January 2017 – Present*
- Completed 183 ETL data projects as lead data analyst and collaborated in more than 200 cases and projects.
- Processed and calculated analysis for class action lawsuits and assembled SSRS reports utilizing SQL and Excel.
- Increased efficiency by 97% of geolocation parsing algorithm from Big O(n) to Big O(log(n)) in Python PySpark.
- Developed duplication detection algorithm by incorporating Levenshtein Distance in Python PySpark.

SHAMAN – *Software Engineer* **Orlando, FL** | *October 2015 – December 2016*
- Developed software on various customer relationship management platforms including SalesForce and Odoo.
- Calculated reports and analytics through RapidMiner, Python, PHP, and PostgreSQL and Tableau visualizations.
- Engineered prototyping boards with RFID read and write functionalities interacting with PostgreSQL in C
- Achieved multiple National Science Foundation Innovation Corps (I-Corps) grants for IoT and big data analytics.