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# Hammad A. Usmani

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<https://hammad93.github.io>  
<https://github.com/hammad93>

## EDUCATION

University of Central Florida – B.S. Computer Science

December 2016

HBX | Harvard Business School – CORE: Credential of Readiness, Pass

July 2017

## QUALIFICATIONS

IBM Open Badge – Big Data Programming, Big Data Hadoop Foundations <https://goo.gl/66jp9i>

December 2015

Udacity – Machine Learning Engineer Nanodegree+

December 2017

## TECHNICAL SKILLS

*Programming Languages:* Python, R, Hadoop, Java, C++, SQL, MongoDB, JavaScript (MEAN), UNIX

*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

**Unsupervised Learning: Creating Customer Segments** – [hammad93.github.io/unsupervised](https://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](https://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

**Deep Learning: TensorFlow Seq2Seq NLP**

February 2017

- Computed Seq2Seq neural network using Tensorflow by training on public datasets for conversational input.
- Led development team using the German Center of Artificial Intelligence CUDA architecture.
- Completed model after 180 hours of training time on public court records and message board data sets.

**Big Data Management Tools** – [github.com/bdmt](https://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 World Multiconference on Systemics, Cybernetics and Informatics**

June 2016

- Surveyed and sampled 507 responses and conducted regression analysis, hypothesis testing, and other metrics
- Reference: Almalki, H. M., L. Rabelo, Dr. C. David, Dr. and H. A. Usmani. "Analyzing the Existing Undergraduate Engineering Leadership Skills." *World Multiconference on Systemics, Cybernetics and Informatics 2 (2016):* 64-67. Print.

## PROFESSIONAL EXPERIENCE

**Simpluris – Data Analyst**

Orlando, FL | January 2017 – Present

- Completed 155 projects as lead data analyst and participated 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 of geolocation parsing algorithm to from Big O(n) to Big O(log(n)) in Python.
- Developed duplication detection algorithm by incorporating Levenshtein Distance in Python.

**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.
- Engineered prototyping boards with RFID read and write functionalities interacting with PostgreSQL in C
- Achieved National Science Foundation Innovation Corps (I-Corps) grant for big data analytics.