

VENKATESH BABU SEKAR

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EDUCATION

Northeastern University, Boston, MA

Master of Science in Information Systems (GPA 3.5)

Dec 2018

Data mining engineering graduate certificate

Aug 2017

Anna University, Chennai, India

Bachelor of Engineering in Electronic and Instrumentation

May 2013

TECHNICAL SKILLS

Data Skills:	Machine Learning, Object Detection, Neural Network, Classification, Clustering
Python Packages:	Tensor-flow, Keras, Theano, NLTK, NumPy, Pandas, SciPy, Scikit Learn
AWS:	S3, Redshift, Athena, Elasticsearch Service, AWS Lambda, DynamoDB, kinesis firehose
Business Intelligence:	Kibana, Tableau, Quick Sight, Microsoft Power BI, Qlik Sense
Languages:	Python, R, SAS, Java, SQL
Database:	MySQL, Microsoft SQL Server, PostgreSQL, Oracle 11g
Data Integration:	Talend Enterprise Data Integration, SQL Server Integration Services (SSIS)

PROFESSIONAL EXPERIENCE

YouTube Channel - Science of Data: <https://www.youtube.com/channel/UCStUloKik-m-Th2tPfSe6oA> **Jun 2018 - Present**

- Managing and operating a YouTube account with 60+ subscribers focused on explaining machine learning to amateurs
- Edited and produced a video series (54 videos) -Introduction to Python, guiding How to start coding in Python
- Developing a video series- Data science & Machine learning using Python, which covers various ML models in detail

Amazon, Boston, MA - **Data Analyst Co-op**

Jan 2018 - Aug 2018

- Built Object detection classifier using fast_rcnn to detect the reverts in the pods deployed across the global FC's
- Created 500+ labelled image data set using LabelImg and generated TFRecord file to train the object detection classifier
- Integrated Alexa echo with MySQL using python to provide voice-based interaction to get FC deployment details
- Utilized Internet of Things platform, using Raspi to track the pod-built productivity data in real time using Quick Sight
- Built live dashboard in Kibana, Tableau to track the ticket status and the Fulfilment Centre (FC) status across the globe
- Developed data pipeline for efficient data flow from IoT core to Redshift, S3 and Elastic search services
- Created Python script to gather data from various sources and performed data transformation using AWS lambda

Northeastern University, Boston, MA - **Graduate Teaching Assistant (Advances in Data Science)**

Sep 2017 - Dec 2017

- Supervised graduate students to build various neural network models using Keras for their academic projects
- Mentored students to learn the concepts of web scraping, data cleaning and data visualization using R and Python

Cognizant, Chennai, India - **Data Analyst (Role: Data Scientist)**

Sep 2013 - Jun 2016

- Built a Regression model to estimate the utility of customers investment towards the organization profit
- Improved prediction accuracy of model by 2% by data imputation with the logical historical values
- Led a team of three associates to maintain the data dictionary and to prepare the daily and weekly reports using Tableau
- Collected data using SQL scripts, cleaned and analyzed the data using Python to identify important metrics

ACADEMIC PROJECTS

Project Repository: <https://github.com/venkateshbabusekar>

Security Alert - Gun Detector (Object Detection, Tensorflow, Raspi)

Oct 2018

- Built Object detection classifier using Raspi and Movidius Computing stick to detect the guns carried in the public gathering
- Installed Tensorflow, OpenCV in Raspi and performed Object detection locally and triggered security alert email
- Implemented data annotation and generated TFRecord file to train the model, deployed the model in Raspi 3

Classification of Video for Action Recognition - (Keras, Tensorboard, CNN – MLP, CNN – LSTM, LRCN)

Dec 2017

- Analyzed human activities and ongoing events successfully by obtaining the probabilities of the activity for the whole video
- Converted all the videos into frames and extracted the feature of each image and combine then into a sequence of feature
- Built various model and tuned the hyper parameters to obtain higher accuracy and visualized the output in Tensorboard

Sentiment Analysis on StockTwits and News Headlines - (Keras, CNN, RNN, LSTM, MLP)

Oct 2017

- Created a word dictionary from stocktwits and yahoo news headlines, tokenized and padded the words using Keras
- Built a GINsum model and calculated the vectorized distance between words, used bokeh to visualize the word distances
- Projected each word in 300 dimension, built various models and tuned the hyper parameters to obtain sentiment score

Enron Scandal Text Analytics (Python, Text Analytics)

Jan 2017

- Gathered 5 million emails related to Enron scandal and processed those data using python to implement text analytics
- Identified the top 10 people who might be involved in insider trading and securities fraud which led to Enron scandal