Divya Emmanuel

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Online portfolio: https://divyaemmanuel.github.io/portfolio

Education

Northeastern University, Boston, MA
Master of Science in Information Systems **May 2019**
Relevant courses: Advances in Data Science and Architecture, Big-Data Systems and Intelligence Analytics, Database Management and Database Design, Application Engineering and Development

Anna University, Chennai, TN, India
Bachelor of Engineering in Electronics and Communication Engineering **May 2015**

Technical skills

Data:	Machine Learning, Deep learning, Modeling, Statistics, Data Visualization
Programming languages:	Python, R, Matlab, SQL, Java
Python Package:	Tensor-flow, Keras, NLTK, Numpy, Pandas, Scipy, Sklearn, Matplotlib
Database Management Systems:	Microsoft SQL Server, MySQL
Business intelligence:	Tableau, Microsoft Power BI
Other Technologies:	Apache Spark, Hadoop MapReduce, Docker, AWS, VMware 5.5 and 6

Academic Projects

Northeastern University, Boston, MA

Brand logo visibility using Deep Learning (Python, Keras, Flask, Rest API, Docker, AWS) **April 2018**

- Designed a Convolutional Neural Network using Keras to recognise 27 different brand logos for any given image;
- Data pre-processing performed on the image data followed by augmentation to generate ~ 13500 images to train the model
- Transfer learning implemented by retraining Inception V3 with same dataset
- Created a web application using flask for the model and hosted the application on EC2 instance using AWS S3 bucket;
- The application also used to compare the designed model with inception v3 pretrained model

Stock prediction using market data and twitter sentiment analysis using LSTM (Python) **March – April 2018**

- Built a LSTM model using **keras** with **Tensor -flow** as backend that predicts next day open price of a stock for a company
- ARIMA model was also developed with same data set but LSTM considered best with **73%** prediction accuracy achieved

Classification analysis on Bank campaign dataset (Python, Matplotlib, Seaborn, Luigi) **March 2018**

- Developed a model that classifies whether a bank customer will subscribe to term deposit or not using customer inputs
- Anomalies present in the data was removed; Data pattern and correlation was visualised using Matplotlib and Seaborn
- Pipelined the final model as using Luigi python module and dockerised
- A web application created using **Flask** with the help of **REST API** hosted in AWS EC2 instance

Machine Learning on Energy Dataset (Python, Sklearn, Scipy, Ploty, Matplotlib, Docker, AWS) **March 2018**

- Performed Exploratory data analysis; implemented various Feature Engineering; modeled four prediction algorithms to compare and choose best algorithm for the dataset; identified Random Forest algorithm with best accuracy of **94%**
- Used various tools and packages for Feature selection; and validated the model by hyper parameter tuning and finalised pipe line with best prediction model for the data using sklearn package

Data wrangling and Web scrapping on EDGAR data (Python, Matplotlib, Docker) **February 2018**

- Web scrapped the U.S. SEC's EDGAR filling data and log files to detect anomalies for given company name and year
- Dockerized the application and published to Amazon S3

Server Administration Database System (MySQL, Tableau) **November – December 2017**

- Designed a redundant free accurate Database to maintain Server administration details by creating ER Model and reverse engineered DDL script in MySQL
- Hosted the database in a remote Server with different user functionality and modelled the database with required procedures, views, triggers and subqueries; Visualised the Database using Tableau

Experience

Software Engineer - **TATA Consultancy Services Limited, Bangalore, India** **May 2015 – June 2017**

- Performed SQL Server deployments using SSMS, SSIS and SSRS
- Administered 1000+ servers and deployed various critical server changes using SCCM
- Involved in server build team and handled ***Vulnerability management*** to ensure Information security on servers;
- Received "***Star of the Month***" award for outstanding contribution to the organization and "***On the Spot***" award for work excellence when completed an urgent client request before the deadline
- Awarded "***Certificate of Excellence***" in appreciation of outstanding contribution towards delivering excellence by **PricewaterhouseCoopers**

Project Repository: https://github.com/DivyaEmmanuel