Abhishek Maheshwarappa

Boston, MA | (857)-800-3212| maheshwarappa.a@husky.neu.edu | www.linkedin.com/in/abhishek-g-m
My Book | https://github.com/Abhishek-Gargha-Maheshwarappa

EDUCATION

Northeastern University, Boston, MA Expected Aug 2021

Master of Science in Information Systems **GPA 3.7**
Courses: Data Science and Engineering Methods and Tools, Advance Data science and Architecture, Algorithmic Digital Marketing
Computational Skepticism(special topics in Artificial Intelligence)

Visvesvaraya Technological University, Belagum, India July 2015

Bachelor of Technology in Electronics and Telecommunication

TECHNICAL KNOWLEDGE

Languages:	Python, R and SQL
Technologies:	Deep Learning - CNN, RNN and GAN, Reinforcement learning, Bayesian statistics, Neural Network, Gbm, glm, xgboost Linear regression, Logistic regression, Bayesian-linear-logistic regression, Decision tree, Random forest, Knn, SVM, K –Means, Statistical modeling, Einstein analytics – Salesforce
Libraries:	Numpy, Pandas Scipy, Scikit-learn, Theano, TensorFlow, Keras, H2o, Auto-ML – H2o , Matplotlib
Tools and software:	Salesforce, Anaconda, Jupyter Notebooks, Google Colab, Git
Databases:	SQL – IBM db2, Snowflake
Data visualization:	Tableau, Power BI, Apache Superset, Python library – Matplotlib, Seaborn, ggplot
Cloud Environment:	Docker**,** AWS- EC2, S3 bucket, Athena

WORK EXPERIENCE

Graduate Programmer-Analyst Squark, Burlington, MA, USA May 2020 – June2020

- Working on model interpretability of model built by h2O generated leader board using Shap - SHapley Additive exPlanations for building force plot and feature importance using Shap values for throwing light on the black box models
- Introduced a method to reduce the time for data conversion from H2O frame to pandas from 1.30 hour to 3.26 minutes on the dataset with 1120 columns, and working on parallelizing the shap generation on different models by firing up multiple H2O subprocesses
- Built surrogate decision tree for the black box model for better explainability and interpretability and creating tree visualization

Machine Learning Engineer Rove Labs, Bengaluru, India (start-up) June 2017 – July 2019

- Built programs using linear regression, Logistic regression, Knn and Random forest algorithms.Designed and developed many Iot(Internet of Things) devices and codded for different application usingPython which led to an increase in the clients by 30%
- Conducted a cutting-edge workshop for institutions and software enthusiasts

Electronic Products Engineer Hoysala Technologies (I) Pvt. Ltd, Bengaluru, India November 2015 - April 2017

- Provided technical solutions in design and development of hardware like multi-function displays, power distribution systems and integrated drive controllers
- Designed and completed testing new LED driver circuit design to be implemented in different instruments usingEagle

PROJECTS

Model Interpretability – TCAV, SHAP and LIME February 2020 -May 2020

- Built model to calculate and predict Customer lifetime value and classification algorithm to segment customer and used local and global interpretability with perturbation and ICE and PDP plots for better explainability of the model to the stakeholders
- Used TCAV, SHAP, and LIME to analyze these deep learning models and neural networks to understand based on what things image is being classified. Writing a hands-on book on model Interpretability and computational skepticism
- Library – Keras, TensorFlow, TCAV, SHAP, scikit learn, NumPy, Pandas. Tools: Google Colab, Azure interpreter, python

Multi-class Classification Retina funds Image February 2020 -March 2020

- Multi-class Comparison between Choroidal Neovascularization, Diabetic Macular Edema, Drusen, and Normal using Deep learning using Convolution neural network. Retinal optical coherence tomography (OCT) is an imaging technique used to capture high-resolution cross sections of the retinas these images are feed into neural network with Convolution neural network with four layers
- Programmed using TensorFlow, Keras, NumPy, Pandas and was able to train the model with 97% accuracy

Attribution Modeling for real time data from Criteo January 2020 – February 2020

- Implementing multi-touch multi-channel attribution model like Last-touch attribution, First-touch attribution, Time-decay attribution, Linear attribution, U-shaped attribution, Logistic Regression Model and LSTM with and without attention
- Used the weights of attribution to make Budgeting decisions recommendations. Developed a pipeline connecting with EC2 instance using ubuntu server to S3 and Athena and visualized the output on the Apache superset. Programmed using Keras, Sklearn, NumPy, Pandas and ggplot. Tools: *Jupyter Notebook, Apache Superset, AWS-S3 and Athena, AWS Ec2*