**MIRA GHIAT** (832)573–7396 ▪ [ghiatc.mira@gmail.com](mailto:ghiatc.mira@gmail.com)

**OBJECTIVES**

I am a dedicated, high achiever, very analytical person seeking to exploit my skills and education in a Dev/Research/ Optimization/Data Science position

# PROFESSIONAL EXPERIENCE

# *Freelance, Houston, TX,*

# Machine Learning Engineer, Jan.2018– Present.

# Focusing on different deep learning techniques to solve different problems for both forcasting/classification problems. Currently, Keras (Tensorflow and Theano backend) is my principal tool and planning to expanding my work for different tools such as mxnet.

# *Integrated Informatics, Houston, TX,*

# Consultant Python Software Engineer, April 2017 – Present

# My position as Python Software Engineer resumes in dealing with different performance issues for a commercial software product with Python Backend; as well as implementing new scientific computing modules. Some of my work tackled the update for performance and robustness of multiple Modules such as, Volume Calculation; Earth Modeling, SEGY Seismic where the speedup accomplished was up to 77%. I have also implemented a Python layer for third party software, resumed in pre- and post-processing IO data. My last project is the implementation of a historical production data Adaptor.

# *InteractiveTel, Houston, TX,*

# Machine Learning Engineer, Jan.2017– Apr. 2017.

# My work consisted in building Machine learning models in Python for several problems in voice technology including feature engineering. Using ML python Libraries, I have implemented a speaker recognition model with six machine learning techniques (HMM, SVM, KNN, Extra Trees, Gradient Boosting, Random Forest). The best performance of approximately 93% was reached for KNN, Gradient Boosting and HMM.

# *Free Lance Project (SocialHeit),* *Houston, TX*,

# Developer Analyst, Feb. 2016–Nov. 2016.

# Freelance contributor in sentiment analysis of social networks users and distinguish them by gender using the ETL process and machine learning techniques with Python for text data.

**Machine Learning Developer and Tutorial Designer**, 2015-2016

Pursued my interest in Data Analytics for both self development and tutorial, I have started with some basic use cases such as hand written digit recognition (SVM and ANN), price of houses prediction (Linear Regression), spam classifier (Bayes Classifier), image compression and dimensionality reduction (Principal Component Analysis) and image classification with ANN.

***Department of Computer Science, Texas Southern University,*** *Houston, TX,*

**Adjunct Instructor/Tutor,** 2012-2015.

Taught first level computer courses to freshmen and sophomore students. My duties included course preparation, grading, student advisement. Received 5.3/6 in student evaluation and got recognized of my high work performance. I also tutored undergraduate Computer Science students some programming principles and data structures.

**Graduate Research Assistant,** 2013-2014.

Worked in collaboration with faculty from the Biology Department on comparing two machine learning techniques: Support Vector Machine and Artificial Neural Networks for DNA Pattern Recognition of breast cancer. I addressed the problem of classification of a subset of genes from broad patterns of gene expression data recorded on DNA microarray from cancer and normal patients. Statistical analysis using these data was performed and involved hypothesis testing, feature selection and data normalization. The comparative study of two machine learning techniques (SVM and ANN) for the classification showed that both techniques are very efficient in Cancer classification.

***BNP Paribas***

**Credit Risk Analyst,** 2007 - 2008.

Evaluated customer credit risk using SPSS/Delphito perform forecasting and statistical tasks related to credit risk assessment. Adapted linear programming and stochastic modeling techniques; such as Monte Carlo simulation; to risk management related factors (interest rate, equity, credit exposure and losses).

**TECHNICAL SKILLS**

* Agile Environment , unit tests, Python Stack (Pandas, Numpy, Scipy, Scikit-learn,..), Several Python APIs, Git Source control, Heroku, Jupyter Notebook, Hands-on with Apache Spark, Matlab, Octave, SPSS

**DATA ANALYTICS SKILLS**

Proven working experience in Optimization, Data Mining and Machine Learning:

* Linear/non linear Programming, Stochastic Modeling (Monte Carlo, Markov )
* Linear/Logistic Regression, K-mean, K-nearest neighbors, Neural Networks, Support Vector Machines, Deep learning RNN/CONV/LSTM/GRU with Keras/Tensorflow, PCA, LDA,
* Feature engineering for numeric, text, voice data types
* Hypothesis testing

**BIG DATA**

Hands on experience with Apache Spark

# AWARDS

* MARC Grant, Bioinformatics Summer Institute, Pittsburg Supercomputing Center, Pittsburg, PA, June 2013.
* College of Science and Technology Faculty and Staff Scholarship, Texas Southern University, May 2013.
* College of Science and Technology Graduate Research Enrichment Scholarship, Texas Southern University, April 2012.
* Graduate School Fellowship and Assistantship, Texas Southern University, January 2012.

# EDUCATION

**MASTER OF SCIENCE IN COMPUTER SCIENCE, 2012 - 2014**

TEXAS SOUTHERN UNIVERSITY (TSU) – HOUSTON, TX

**OVERALL GPA:** 4.00/4.00

**MASTER OF SCIENCE IN OPERATION RESEARCH**

UNIVERSITY OF SCIENCE AND TECHNOLOGY – USTHB

**CERTIFICATE IN MACHINE LEARNING, 2014**

STANFORD UNIVERSITY ONLINE

Grade achieved: 100.0%

# PROFESSIONAL | TECHNICAL LINKS

# https://www.linkedin.com/in/miragh/

# https://scalabletechblog.wordpress.com/

# https://www.github.com/MiraGhiat/