Zizhun Guo

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EDUCATION

Rochester Institute of Technology - Rochester, NY, USA   Expected May 2021

M.S. in Computer Science **-** GPA: 3.44

Advanced Certificate: Big Data Analytics - GPA 3.75

M.S. in Game Design and Development **-** GPA: 3.28   Earned Aug 2018

Chengdu University of Information Technology - Chengdu, SC, CHINA   Earned Jun 2016

B.Eng. in **Electronic and Information Engineering** - GPA: 3.14

RELEVANT COURSEWORKS

Data Structures and Algorithms • Object-Oriented Programming • Intro to Big Data • Big Data Analytics (Data Mining) • Database System Implementation • Web Service & Service Oriented Computing • Independent Study (Text Mining NLP)

TECHNICAL SKILLS

Language: Python, Java, C/C++, C#, Clojure, HTML, CSS, JavaScript, XML, SQL
Database: MySQL, MongoDB, Apache CouchDB, Apache Derby, H2
Framework & Tool: TensorFlow, Keras, scikit-learn, pandas, NumPy, Matplotlib, NLTK, Genism, OpenCV, Pyspark, MLlib, Colab, Jupyter Notebook VSCode, JSON, Bootstrap, NodeJS, ExpressJS, Flask, GlassFish, AWS EC2, AWS S3, AWS Lambda, Ubuntu, Git, SourceTree, Bitbucket, GitHub

RELEVANT EXPERIENCES

Object Detection Web Application for Traffic/Stop Signs (Python, Tensorflow, OpenCV, Flask, Nginx, Gunicorn, AWS EC2) http://3.16.135.19/home   Feb 2021

- Built an end-to-end Restful Object Detection Web Application using YOLO V4 model that detects the object categories and bounding boxes given an image. It is a fork project regarding the degree Capstone Project
- Trained/Tested the YOLO model on the Stop/Traffic signs subset imported from Google Open Image v6 Dataset
- Adopted transfer learning method on the CSPDarknet-53-tiny backbone feature extractor and re-trained the last 15 layers
- Deployed the neural networks on AWS EC2 which can be public accessed
- Employed WinSCP for SFTP file transmision and PuTTy for SSH connection for shell commands

Text Mining for Multiclass Classification based on Yelp User's Reviews (Python, Pandas, Sklearn, NLTK, Genism, Tensorflow, Matplotlib)   Aug 2020 – Dec 2020

- Built an python program that detects the category of the restaurant where the user have visited based on its input text review in English
- Preprocessed the Yelp Dataset in Users' and Business' tables by indexing, joining, concatanating, removing stopwords, stemming and lemmatizing from JSON into CSV
- Extracted the word features by conducting TF-IDF, LDA, Embeddings (word2vec: SG & CBOW), Global Vectors(GloVe) textual models.
- Trained/Tested the Machine Learning models LR, SVM, MNB, RF and Neural Networks models like CNN (baseline) and RNN encoder-decoder in LSTM, GRU cells
- Achieved the accuracy to TrainSet 0.99 and ValidSet 0.95 for the CNN model
- Fine-tuned all models by conducting multiple strategies such as hyper-parameters grid search, feature engineering on structural features, feature concatenating with embeddings and regular features, and transfer learning using pretrained textual models

Responsive Web Application Development (HTML, CSS, JS, Node, Express, EJS, Passport, MongoDB)   May 2020 - Jul 2020

- Developd a local O2O Business Review website for offline gastronomy review service inspired by Airbnb Experience
- Employed HTML, CSS, JS with Bootstrap and Semantic UI frameworks for front-end page rendering
- Integrated NodeJS environment, Express server framework for back-end system design
- Implemented CRUD functions for creating and reviewing experience on MongoDB using Mongoose framework
- Implemented Users Signup/Login Authorization module using passortJS

Data Analysis System Web Service (Python, Pandas, Sklearn, Flask)   Mar 2020

- Built a RESTful web service data analysis system using classification and clustering algorithms on API's description crawled from ProgrammableWeb website
- Vectorized the web services' descriptions using three textual models TF-IDF, LDA and Word2Vec
- Implemented three classifiers including DT, NB and NN; two clustering models using KMeans and DBSCAN
- Evaluated the performances of classifiers using Accuracy, F1 Score and the clusterings Silhouette Coefficient

CERTIFICATE

TensorFlow Developer Certificate (issued by Google TensorFlow Certificate Program)   Jan 2021 – Jan 2024
DeepLearning AI. Deep Learning Specialization (issued by Coursera)   Jan 2021

LAST UPDATE: 4/4/2021