Zizhun Guo

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https://zizhunguo.com/

OBJECTIVE

Position: Full-time Machine Learning Engineer • Software Engineer • Data Scientist • Data Analyst • Big Data Engineer

Interests: Data Mining • Data Science • Machine Learning • Deep Learning • Natural Language Processing • Software Development

EDUCATION

Rochester Institute of Technology - Rochester, NY, USA
M.S. in Computer Science 8/2018 - 5/2021 Expected
M.S. in Game Design & Development 8/2016 - 8/2018 Earned

Chengdu University of Information Technology - Chengdu, SC, CHINA
B.Eng. in Electronic and Information Engineering 9/2012 - 6/2016 Earned

TECHNICAL SKILLS

Language: Python, Java, C/C++, C#, Clojure, HTML, CSS, JavaScript, XML, SQL
Database: MySQL, MongoDB, Apache CouchDB, Apache Derby, H2
Framework, Concept & Tool: TensorFlow 2.0, Keras, Scikit-learn, Pandas, NumPy, SciPy, Matplotlib, NLTK, Genism, OpenCV, Pyspark, MLlib, Colab, Jupyter Notebook, Visual Studio Code, Emacs, JSON, JQuery, NodeJS, ExpressJS, Jekyll, YAML, Liquid, Markdown, EJS, Flask, GlassFish, AWS EC2, AWS S3, AWS Lambda, Ubuntu, Git, SourceTree, Bitbucket, GitHub, REST, SOAP, MVC, OOP, API, CI/CD, Agile, Cloud Computing

CERTIFICATES

Big Data Analytics Advanced Certificate (issued by Rochester Institute of Technology) 5/2021 Expected
TensorFlow Developer Certificate (issued by Google TensorFlow Certificate Program) 1/2021 – 1/2024
DeepLearning AI. Deep Learning Specialization (issued by Coursera) 1/2021

RELEVANT EXPERIENCES

TensorFlow based Online Real time YOLO Object Detection Web Service (http://3.16.135.19/home) 2/2021 - 3/2021

- Implemented the end-to-end YOLO web service with Python, TensorFlow, OpenCV, Flask, AWS EC2 for Traffic/Stop sign detection
- Fitting/Testing the TensorFlow model on Google Open Image v6 subset with pre-trained backbone model CSPDarknet-53-tiny
- Developed the full stack with Flask, HTML, CSS3, Bootstrap 4 for UI to demonstrate scores and bounding boxs
- Deployed Flask based service on AWS EC2 with Gunicorn, Nginx for load balancer, WinSCP, PuTTy for instance SFTP/SSH connection

TensorFlow & Scikit-learn based Yelp Dataset Category Text Mining Service 8/2020 – 12/2020

- Implemented the program with Python, Apache Spark, Pandas, Scikit-learn, TensorFlow for the machine learning pipeline
- Conducted data ingestion by indexing, joining, groupby, aggregation with Pyspark, Pandas, Numpy
- Implemented text data preprocessing with NLTK Stem, NLTK Corpus Reader for stopwords removal, text lemmatization and stemming
- Created textual models TF-IDF, LDA, Word2Vec SG & CBOW, GloVe on User's Reviews with Scikit-learn, Gensim, Standford Glove
- Fitted/transformed ML models LR, SVM, MNB, RF, CNN, GRU & LSTM encoder-decoder with Scikit-learn, TensorFlow Keras
- Fine-tuned models by hyper-parameters grid search in Scikit-learn, adopted Pretrained models GloVe42b300d, Google word2vec
- Implemented data visualization with Matlibplot and achieved the accuracy to TrainSet 0.99 and ValidSet 0.95 for the CNN model

NodeJS based Responsive Web Application Development 5/2020 - 7/2020

- Developed the web application with JavaScript, NodeJS, MongoDB for online vendors posting food tours
- Implemented the frontend with HTML, CSS3, JQuery, Bootstrap, SemanticUI and Bulma
- Integrated NodeJS based backend with ExpressJS, EJS and Mongoose
- Implemented Users Authentication module using passortJS and Morgan as logger middleware

Scikit-learn based Data Analysis System Web Service 3/2020

- Implemented the web service with Python, Pandas, Scikit-learn, Flask, CouchDB for an online real-time end to end ML models analysis
- Developed the Python based Web Crawler with bs4 BeautifulSoup, urllib request, re for studying API info from PragrammableWeb
- Implemented text data preprocessing with NLTK Stem, NLTK Corpus Reader for stopwords removal, text lemmatization and stemming
- Created textual models TF-IDF, LDA, Doc2Vec DBOW on API's descriptions with Scikit-learn, Gensim
- Fitted/transformed DT, K-NN, NB classifiers and clustering models KMeans with Scikit-learN

Jekyll based Static Personal Website (https://zizhunguo.com/) 5/2019 - present

- Developed the website with HTML, Jekyll site generator to support Github Pages and build process
- Achieved website backend with YAML for configuration and front matter, Liquid and Markdown to load dynamic content
- Utilized HTML, CSS, JavaScript and Bootstrap to implement the frontend design of the website
- Hosted and Maintained the website on Github server and published it with customized domain name

RELEVANT COURSEWORKS

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