Ambrose Tuscano

https://github.com/Tascano | https://www.linkedin.com/in/ambrosetuscano
atuscan1@umbc.edu | (443) 627-1151

EDUCATION

UNIVERSITY OF MARYLAND, BALTIMORE COUNTY
MS in Computer Science
Dec 2021 | Baltimore, MD

MUMBAI UNIVERSITY
BE in Computer Engineering
May 2019 | Mumbai, India

SKILLS

PROGRAMMING
Python, Javascript.

WEB TECHNOLOGIES
Html5, CSS3, PHP.

FRAMEWORKS AND TOOLS
XAMPP, Qiskit, Flask, Django, Spark, Hadoop, Github, Wordpress, Tableau. Mathematica, LaTeX.

DATABASES
MySQL, MongoDb.

LIBRARIES
scikit-learn, NumPy, pandas, PySpark, Tensorflow, Keras, seaborn, PyTorch, FastAI, Tkinter, NLTK, spaCy

CODING ENVIRONMENT
Microsoft Visual Studio, Anaconda, Sublime Text, Google Colab, Android Studio

COURSEWORK

GRADUATE
Design and Analysis of Algorithms
Computer Vision
Information Retrieval
Data Science
Advance Operating System
Principles of Computer Security

UNDERGRADUATE
Algorithms
Data Structure
Machine Learning

ACTIVITIES

• Vice Chair of UMBC ACM committee from Aug'20 to Sept'21.
• Head/Event coordinator at MSFC Sports Club .

PROJECTS

PEER TO PEER DISTRIBUTED FILE SYSTEM
- Designed a File System which was tested to work efficiently over 8 peers in a network and handled file on basis of version control.
- The system was developed with Python sockets, and an algorithm was developed to replicate the file over nodes in the system to provide a failure resilient architecture.

HAND GESTURE RECOGNITION USING CNN BUILT FROM SCRATCH
- Developed a code to capture and pre-process the images for dataset creation and wrote code for the CNN layers from stratch with a team.
- The CNN model created was able to get accuracy of 76.33%.

DOCUMENT RETRIEVAL SYSTEM
- Tokenized relevant words, ran TF-IDF counting algorithm, later indexed the tokens and clustered the documents as per their cosine similarity to given 503 Documents.
- Efficient use of Data Structures resulted in getting queried results in under 10 minutes.

TV SERIES RECOMMENDATION
- Coordinated the work among the team and handled Scraping data from TVDB Website. Implemented Tfidf vectorization for Content Based Filtering, and Correlation algorithm to collaborate the recommendation result.
- Implemented technique gave an accuracy of around 85%.
- Wrote Flask based API to call in a Android application for displaying results.

CNN BASED DIGIT RECOGNITION
- Developed a CNN based on MNIST Digit Dataset, to recognize the digits user draws with 97% accuracy.
- Created a Flask based website, to take user inputs, and hosted it using Heroku at: https://cnnhand.herokuapp.com/

WORK EXPERIENCE

GRADUATE RESEARCH ASSITANT | UMBC
Sept 2020 - present | Baltimore, USA
Researching on Fake News Detection for the AI-SSGL lab at UMBC.
https://ai-ssgl.umbc.edu/ambrose-tuscano/

GRADUATE ASSISTANT | UMBC
August 2020 - present | Baltimore, USA
Worked with Professors for Grading submissions and Assisting students with their coursework related queries for Information Retrieval and Numerical Computations Courses.

FRONTEND DEVELOPER | Ramdevarmutt Trust
(Freelancer)July 2019 - Jan 2020 | Bangalore, India
Created a Online Worshiping and Meditation functionality using vanilla JS and PHP, leading to 40% increase in engagement and 30% increase in donations.