

Ambrose Tuscano

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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

SQL, MongoDB, PostgreSQL

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
Artificial Intelligence
Machine Learning

ACTIVITIES

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

PROJECTS

QR CODE BASED VALIDATION + DATA COLLECTOR

- Wrote a Flask based QR code based validator, which companies could use to validate the authentication of the product.
- The product creates QR codes with embedded links, which can be scanned and the created API returns confirmation about the details of the product by querying the SQL database in the backend.

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

- Contributed to code script to capture and pre-process the images for dataset creation and wrote code for the CNN layers from scratch with the 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.

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.

WORK EXPERIENCE

MACHINE LEARNING INTERN | NXP

May 2021 - present | San Jose, USA

Currently working on ML based Automation and Regression test optimization for reducing Test Cases for internal software testing.

GRADUATE TEACHING ASSISTANT | UMBC

August 2020 - present | Baltimore, USA

Worked closely with professors for courses like Information Retrieval and Numerical Computations. Was researching on Fake News Detection for the AI-SSGL lab at UMBC. More at: <https://ai-ssgl.umbc.edu/ambrose-tuscano/>

WEB SOLUTIONS DEVELOPER (FREELANCER)

July 2019 - Jan 2020 | India

Ramdevarmutt Trust - Created a Online Worshipping and Meditation functionality leading to 40% engagement and almost 30% donations increase.

Meraki Engineering - Developed Websites with Great SEO to display portfolio of a Electric services based startup.