Ambrose Tuscano

443-627-1151 | https://tascano.github.io/ | atuscan1@umbc.edu | linkedIn/ambrosetuscano | github/tascano

EDUCATION

Master of Science in Computer Science   Baltimore, MD | Dec 2021
UNIVERSITY OF MARYLAND, BALTIMORE COUNTY
Teacher Assistant (TA): Information Retrieval, Computer Security, Discrete Structures, Numerical Computations
Bachelor of Engineering in Computer Engineering   Mumbai, India | May 2019
UNIVERSITY OF MUMBAI

SKILLS

Languages: Python, SQL, HTML, CSS, Java
Databases: MySQL, PostgreSQL, MongoDb
Libraries: Scikit-learn, OpenCV, PySpark, Tensorflow, Keras, PyTorch, Tkinter, spaCy, Flask, Django, Gensim, Selenium.
Frameworks and Tools: XAMPP, Qiskit, Spark, Hadoop, Git, PowerBI, Tableau. Mathematica, Wordpress, LaTeX.

WORK EXPERIENCE

NXP SEMICONDUCTORS | SOFTWARE ENGINEERING INTERN   San Jose, CA | May 2021 – August 2021
- **Re-designed** test suite using Unsupervised learning, resulting in minimum configuration change at each stage thus **reducing 30% run time** and **50% less manual intervention**.
- **Collaborated** with Software Testing Teams and Documented challenges faced by the testing teams and devised Machine Learning based solutions for them, further investigated data to be collected from existing code-base.
- **Designed proof of concept using Supervised Learning** to select test cases based on priority of failure at each feture change, to reduce development to feedback time in the CI/CD pipeline. [Left Shifting of Risky Tests]

PROJECTS

PRODUCT VALIDATION SERVICE ↗   DJANGO, MYSQL, HEROKU
- Built platform to generate QR codes with embedded links to fetch and display details of a item from SQL database.
- Developed POS system using Django to manage the frontend display and API calls to data and hosted it on Heroku.

HATE SPEECH ANALYSIS -ELECTION 2020 ↗   HUGGING FACE, TENSORFLOW, TWEEPY, GENSIM
- Developed BERT based Sentimental Analysis model, with accuracy of 95% to classify hate tweets over 6 months.
- Generated topics frequently mentioned using Topic Modeling to get hate instigators and visualize them vs time.

PEER TO PEER DISTRIBUTED FILE SYSTEM ↗   RPYC, MULTI-THREADING
- Designed a Distributed System with TCP sockets to support File modification operations on 8 connected nodes.
- Developed a failure resilient architecture by supporting replication and implementing version control.

BANK DATABASE MANAGEMENT SYSTEM ↗   MYSQL
- Created a database in MySQL using the Entity Relation model & SQL scripts to define tables with 40K records.
- Executed enhanced SQL queries using joins, triggers, stored procedures and views to retrieve data using SQL.

TV SERIES RECOMMENDATION- NETFLIX CLONE ↗   SCIKIT-LEARN, FLASK, JAVA, ANDROID STUDIO
Developed Android Application to provide Log-in, Profile and Recommendations sections and Wrote Flask based API to fetch data from the ML based Recommendation back-end which had 90% accuracy.

RELEVANT PROJECTS ↗
1. Document Retrieval System Coded *Tfidf* and *Cosine Similarity* algorithms from scratch to index and retrieve most similar documents at each weighted search,
2. MapReduce implementation of k-NN algorithm using Hadoop and Java,

ACTIVITIES

- [Freelance] Developer at Ramdevarmutt Trust : Built online worshiping and Meditation functionality leading to 40% engagement and almost 30% donations increase.[ReactJs, API Integration, Hosting]
- Wrote scripts to download, organize emailed submissions and populate spreadsheet for grading as a TA.