Ambrose Tuscano

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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,
Databases: MySQL, PostgreSQL, MongoDb
Libraries: Scikit-learn, NumPy, OpenCV, PySpark, Tensorflow, Keras, seaborn, PyTorch, Tkinter, NLTK, spaCy, Flask, Django,Gensim.
Frameworks and Tools: XAMPP, Qiskit, AWS, Docker, Hadoop, Git, PowerBI, Tableau. Mathematica, Wordpress, LaTeX.

WORK EXPERIENCE

NXP | MACHINE LEARNING INTERN   San Jose, CA | May 2021 – Present
- **Collaborated** with Connectivity Software Testing Team and **Designed** test suite by clustering test cases, resulting in minimum configuration change at each stage thus **reducing 30% run time** and **50% less manual intervention**.
- Documented challenges within the C&S testing team that could be solved using Machine Learning based products available in the market and planned data requirements to solidify base for further research within the team.

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 ↗   PYTHON, SOCKETS, RYPC, 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 WORKBENCH, TOAD DATA MODELER
- Designed Entity Relation model in toad modeler based on business rules user privileges.
- Created a database in MySQL using the ER model SQL scripts to define tables with 40K dummy 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, ANDROID
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 Python, 3. **Brain Hemorrhage detection Service** using ResNet, and Django, 4. **CNN built from scratch** using Python, Numpy and OpenCV.

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]