ANJALI BACHANI

✉ abachani@buffalo.edu 🌐 anjalibachani.github.io 📞 +1 7165333462 📍 Buffalo, New York
in anjalibachani ○ anjalibachani

EDUCATION

University at Buffalo, State University of New York January 2020 to June 2021
Masters of Computer Science
GPA: 3.4/4.0

Vellore Institute of Technology July 2017 to May 2019
Masters of Computer Applications
CGPA: 9.19/10.00

JECRC University July 2014 to May 2017
Bachelors of Computer Applications
CGPA: 9.25/10.00, Secured 2nd Rank with a Silver Medal

RELEVANT EXPERIENCE

Intern - Research and Development December 2018 to August 2019
Axis India Machine Learning Jaipur, India
- Devised a dataflow system to transform, scale and streamline imbalanced data from google cloud data prep.
- Explored highly efficient CNN's and RNN's to do Data Augmentation and Stock Prediction respectively, by using GridSearchCV to improve Hyperparameter optimization by 4%.
- Tools Used:- Python, Tensorflow, Keras, Google Cloud Platform (GCP), numpy, pandas, NLTK.

SKILLS

KNOWLEDGE: Data Structures, Algorithms Analysis, Web Development, Cloud Computing
LANGUAGES: Java, Python, JavaScript, React.js, Node.js, SQL, HTML, CSS, MATLAB, C/C++
FRAMEWORKS: OpenCV, Tensorflow, Pandas, Keras, PySpark, SOLR, NLTK, scikit-learns, numpy, matplotlib
DATABASES: MySQL, MongoDB
TECHNOLOGIES: Docker, Apache, AWS EC2, Git, JSON, GCP
SOFT SKILLS: Meticulous, Creativity, Effective Planning, Communication, Perseverance

RELEVANT PROJECTS

Database for Medical Records (JavaScript, React.js, Node.js, MySQL, CSS) August 2020 to December 2020
- Created a real-time web-based application that optimizes the recording of results of tests conducted on medical samples.
- Constructed a database for samples and shipments and facilitated lookups for the same.
- Standardized the tracking of shipments for users by providing summarized information of the sample reducing overhead by 30%.

Open IR - Information Retrieval System (Angular, Python, AWS, SOLR, Lucene, CSS) September 2020 to November 2020
- Devised an IR system with a corpus containing 3 million tweets in 7 languages and 25 countries on "COVID-19".
- Incorporated Location Analysis and Sentiment Analysis to better understand the public response in each country.
- Performed Latent Dirichlet Allocation for Topic modeling and applied Faceted search on the indexed tweets.

Boolean Query and Inverted Index with TF-IDF Ranking (Python, SOLR, Lucene) September 2020 to October 2020
- Built an Inverted Index using Python by extracting information on Input Corpus and performed DAAT(Document-at-a-time) AND and DAAT OR on the input queries using the Inverted Index from the same corpus of 40,000 tweets.
- Ranked the results returned by the boolean query using TF-IDF scores.

BenOr Decentralized Consensus algorithm (TLA+) July 2020 to August 2020
- Implemented BenOr decentralized consensus algorithm for distributed systems.
- Tested properties of Agreement, Progress, and MinorityReport for different scenarios using TLA+ model checking tool.

Detecting Racial Biases in COMPAS (Python, Pandas, NLTK, Jupyter Notebook) April 2020 to May 2020
- Investigated 3 Machine Learning Algorithms to replace the existing COMPAS system- Used by the judiciary to grant bail.
- Validated and reduced the Model's algorithmic bias towards Blacks and Hispanics based on recidivism and 14 other parameters.
- Enhanced a system that uses Naive Bayes Classifier and enforces Equal Opportunity across racial lines to ensure maximum fairness possible.

PRESENTATIONS AND LEADERSHIP

Presented a research paper titled "Forex Exchange using Big Data Analytics" February 2019
International Conference on Science, Technology, Engineering and Management (I-STEM-18), Kumaraguru College of Technology (KCT)

Represented "Drowsiness Detection using Facial Expression" November 2017
International Conference on Science, Engineering and Technology, Vellore Institute of Technology (VIT)

Student Coordinator for ISRO Exhibition April 2016
Indian Space Research Organization

Faculty Relations Team Lead for IAESTE India September 2015
JECRC University