

# 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**  
Masters of Computer Science  
GPA: 3.4/4.0

January 2020 to June 2021

**Vellore Institute of Technology**  
Masters of Computer Applications  
CGPA: 9.19/10.00

July 2017 to May 2019

**JECRC University**  
Bachelors of Computer Applications  
CGPA: 9.25/10.00, Secured 2nd Rank with a Silver Medal

July 2014 to May 2017

## RELEVANT EXPERIENCE

**Intern - Software Developer**  
*Axis India Machine Learning*

December 2018 to August 2019  
Jaipur, India

- Reduced website overhead by 20% by upscaling the conventional JavaScript HTML+CSS website of the company to a single page React App.
- Performed SQL data modelling and built REST API's using NodeJS to handle HTTP requests with CRUD operations on data stored in MySQL.
- Updated, upgraded and set up unit test using Jest and Moc to reduce application bug reports by 17%.
- Implemented OAuth2 Security along with PKCE Flow to streamline authorization and Integrated Google Login for authentication.
- Increased website interaction by 25% using SEO Tools like Google Analytics, MozBar, and WooRank.

## SKILLS

**KNOWLEDGE:** Data Structures, Algorithms Analysis, Web Development, Cloud Computing, Data Visualization, Distributed System, Relational Database  
**LANGUAGES:** Java, Python, JavaScript, React.js, Node.js, SQL, Angular.js, CSS, MATLAB, C/C++, HTML  
**FRAMEWORKS:** OpenCV, Tensorflow, Pandas, D3, PySpark, NLTK, scikit-learns, numpy, matplotlib, Keras  
**TECHNOLOGIES:** Docker, Apache Lucene, AWS EC2, Git, JSON, GCP, Apache Spark, Apache Hadoop, Apache SOLR, Jupyter Notebook  
**SOFT SKILLS:** Meticulous, Creativity, Effective Planning, Communication, Perseverance  
**DATABASES:** MySQL, MongoDB

## RELEVANT PROJECTS

**Database for Medical Records (JavaScript, React, Node, MySQL, CSS,HTML)**

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, D3,HTML)**

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 and portrayed using different Data Visualization methods like Data Maps, Timelines, and Graphs.
- Performed Latent Dirichlet Allocation for Topic modeling and applied Faceted search on the indexed tweets.

**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.

**Big Data Processing using Apache Hadoop (Python, Hadoop)**

March 2020 to April 2020

- Spearheaded the development of a data processing model using MapReduce framework on Project Gutenberg dataset.
- Implemented word count, N-grams, and inverted index algorithms as layers of the model.
- Used MapReduce to perform relational joins and K-Nearest Neighbors on the dataset.
- Achieved an F1-score of 0.984, comparable to the state of the art model's F1-score of 0.993.

## PRESENTATIONS AND LEADERSHIP

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

February 2019

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

November 2017

Student Coordinator for ISRO Exhibition  
Indian Space Research Organization

April 2016

Faculty Relations Team Lead for IAESTE India  
JECRC University

September 2015