

## Thasleem Banu Tajudeen

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### EDUCATION

#### Master of Science in Computer Engineering

San Jose State University, San Jose, CA

Aug 2019 - May 2021

GPA: 3.83 / 4

#### Bachelor of Engineering in Electronics and Communication Engineering

Kongu Engineering College, Tamil Nadu, India

Aug 2009 - Apr 2013

GPA: 8.77 / 10

### KEY SKILLS

Predictive Analysis, Machine Learning, Deep Learning, Data Pipelines, Data Visualization, Data Structure and Algorithms, Supervised Learning, Unsupervised Learning, Regression, Classification, Object Detection, Recommendation Systems, Sentiment Analysis, MERN Stack Web Development

**Programming Languages:** Python, Javascript, C++

**Tools:** Jupyter Notebook, Tableau

**Databases:** MySQL, MongoDB, (Mongoose, Sequelize), Postgres

**ML Libraries:** NLTK, Gensim, Keras, TensorFlow, OpenCV, tesseract OCR, PySpark, NumPy, Pandas, SKlearn, Scipy

### ACADEMIC EXPERIENCE

#### Artificial Intelligence in healthcare - Respiratory disease detection, *San Jose State University*

Jun 2020 - Dec 2020

- Proposed and built an AI powered application for detecting respiratory illnesses.
- Analyzed, preprocessed and extracted features from 920 Lung audios recorded from various patients.
- Trained and compared performances of deep learning models such as 2D CNN and LSTMs.
- The LSTM model achieved sensitivity of 60% and specificity of 82%. Deployed the TFlite model on an Android application.
- Built a web application to let users visualize and analyze health history.

#### Amazon review data analysis & LDA based recommendation engine, *San Jose State University*

Jan 2020 - May 2020

- Cleaned and processed Amazon reviews in order to analyze core business KPIs with respect to reviews and ratings.
- Built an interactive Tableau dashboard for visualization. Performed sentiment analysis to generate topic wise ratings for the products.
- Designed an effective product recommendation system based on Latent Dirichlet Allocation(LDA) topic modeling technique in NLP using Amazon customer reviews.

#### Airbnb listings Analysis and Hybrid recommendation, *San Jose State University*

Jan 2020 - May 2020

- Generated a Tableau dashboard to visualize key performance indicators (e.g. average price/ room type, listing counts vs season vs price)
- Utilized PySpark to distribute data processing on large dataset to improve processing speed.
- Modeled a hybrid recommender by combining collaborative filtering and content based filtering techniques. The solution effectively solved the cold start problem in collaborative filtering methods.

#### Graffiti detection and classification, *San Jose State University*

Aug 2019 - Dec 2019

- Developed a modern machine learning system using transfer learning technique (FRCNN, Resnet 50) for graffiti detection and context (i.e whether the graffiti is on street walls or traffic signs) identification.
- Carried out data Collection, annotation, preprocessing, feature extraction, model creation, training and testing.

### PROFESSIONAL EXPERIENCE : SOFTWARE ENGINEER

#### Visteon Technical & Services Centre, India

Sep 2015 - Mar 2016

- Automated test execution using python for validating software features such as warnings, telltales, seatbelt belt minder, etc., for Honda T7GA and Ford CD4 platforms

#### Robert Bosch Engineering and Business Solutions Limited, India

Aug 2013 - Jun 2015

- Performed Hardware-in-loop, functional and unit testing for various modules in the Inverter software for Electric Hybrid Vehicle.
- Supervised a team of 7 members while serving as a task and testing requirement analysis coordinator. Mentored new joiners and Organized a bimonthly tech workshop that introduced teams to new SW and processes.