

## 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

### SKILLS

**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

**Web Technologies & Other Tools:** Git, Kafka, Zookeeper, Passport.js, JWT token, HTML5, CSS3, Bootstrap, Node.js, React, Redux, Express, Socket.io, Graph, AWS EC2, S3

### ACADEMIC EXPERIENCE

#### Reddit Prototype - MERN stack, San Jose State University

Mar 2021 - May 2021

- Designed and developed a 3-tier (Client, middleware, database) distributed prototype of Reddit web application.
- Created API document, database schema and frontend UI wireframes.
- Used Node.js and Express to build webserver and RESTful APIs.
- Implemented frontend components using React and Redux. Displayed various analytical charts created with google charts which describes community and posts stats.
- Deployed application on AWS EC2 server instance. Applied Redis caching for messaging feature, as a result server was able to respond to 10000 concurrent users within 1 sec.
- Enhanced performance and reliability with Kafka, MongoDB sharding, RDS replication, connection pooling.
- Measured application's performance under various workloads using JMeter and APIs were tested using Mocha.

#### Splitwise Prototype, San Jose State University

Jan 2021 - Mar 2021

- Designed APIs and developed RESTful services for prototype of Splitwise web application.
- Described models / relationships and modeled database schema.
- Authentication was done using JWT token and passport.js.
- Utilized Object Oriented Programming concepts to devise UI components which can be reused across the Web Application.
- Implemented pagination, recent activity page, expense comments/ notes along with additional features for viewing and editing user groups. Improved page speed by leveraging browser caching.

#### 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.
- Made 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.

### PROFESSIONAL EXPERIENCE : SOFTWARE ENGINEER

#### Visteon Technical & Services Centre, India

Sep 2015 - Mar 2016

- Performed Software validation of Instrumentation Panel Cluster ECU. Wrote Python automation test scripts 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.