# SAI MANASA VEDANTAM

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#### **EDUCATION**

**Master of Science in Computer Science** 

Jan 2021 - Dec 2022 (Expected)

University of Texas, Dallas (UTD)

4.0 GPA

**Bachelor of Technology in Computer Science & Engineering** 

Jan 2015 - May 2019

Jawaharlal Nehru Technological University, Kakinada

3.8 GPA

### **TECHNICAL SKILLS**

Programming Languages Java, Python, C, C#

Web Development HTML, XML, CSS, JavaScript, ReactJS, JQuery, Angular, Typescript

Database Technologies MySQL, MongoDB

IDEs Eclipse, Visual Studio, Visual Studio Code, IntelliJ

Frameworks Flask, ASP.NET MVC, Apache Spark, Django

Intelligent Technologies Machine Learning, Artificial Intelligence, Natural Language Processing

#### PROFESSIONAL EXPERIENCE

## Summer Analyst at Goldman Sachs (Dallas, TX)

**June 2022 - Aug 2022** 

- Implemented the dynamic responsive web application by integrating Angular with Bootstrap which is further integrated with web services that use Sybase ASE as a data store.
- Involved in various phases of SDLC like requirements gathering, design, development & analysis of the system specifications of a SOA driven application, which is used extensively by the firm.
- Migrated the legacy system to a cutting-edge system with upgraded tech stack and enhanced features following Agile methodology.
- Developed unit test cases using Jest framework to improve code coverage & performed integration testing on the application to validate the functional workflow.

#### Software Developer at Hexagon Capability Center (India)

June 2019 - June 2020

- Implemented front-end of the application with ReactJS, Typescript, Bootstrap, CSS & back-end using ASP.NET in MVC architecture & Redux promises for data retrieval with RESTful calls.
- Experienced in working with Redux architecture using complex Object-oriented concepts.
- Developed xUNIT test cases for code coverage & experienced in Test-driven Development.
- Worked in Agile development environment with frequently changing business requirements.

#### ADDITIONAL EXPERIENCE

Working as a Grader in Computer Science Department at UTD
Tutor in Computer Science Outreach Program at UTD
Freelance educator on Unacademy
Sept 2021 - May 2022
June 2021 - Sept 2021
Mar 2018 - June 2020

# PROJECTS ACCOMPLISHED

## **Question-Answering System using NLP (Python, GIT, Jupyter Notebook)**

• A closed-domain QA system that uses Natural Language Processing techniques to answer What, Who & When type questions based on Stanford Question Answering Dataset (SQuAD).

## Bridal Boutique (HTML, JS, CSS, Python Flask, Jquery, Bootstrap, SQL, GIT)

• Responsive shopping website that sells bridal clothes & accessories which allows user to wish list items, book appointment, filter, search through pages etc. along with admin privileges.

# Heart Disease Prediction System using Machine Learning (Python)

• Using predictions of three ML algorithms namely Naïve Bayes, Logistic Regression and Support Vector Machines, it predicts the probability of getting attacked by heart disease in near future.

# Student Counseling System (JS, HTML, CSS, XAMPP, PHP, RESTful calls)

• Aimed to reduce redundant paperwork each time the student promotes to next class. Automates complete system with few updates to the data twice per year.

## Analyze User Experience based on Human Computer Interaction (WinForms, C#)

• While many works concentrate on building User Interface, this project builds an application & analyzes both UI and User Experience using standard metrics, statistical tools & best practices.

# Expert Systems solution for Disease (Python, HTML, CSS, Bootstrap, JS, Django, ML)

• Utilizes the potential of Big Data Management & Analytics along with Machine Learning & Natural Language Processing to suggest the likeliness of having top 10 diseases along with a GUI to read the symptoms a person is experiencing & visualize the results.

## Point-annotation based Crowd counting & Detection with Deep Neural Networks (Python)

• Builds a model that performs crowd counting & detection using Point annotations on heads by addressing the issues with existing systems that are incapable of performing the same at a time.

# Real-time Analysis & Visualization of Tweets (Python, Kafka, Kibana, Elastic Search, Spark)

• Builds an end-to-end pipeline to read tweets, process them & perform sentiment analysis on the same and visualize the observations in real-time using Kafka, Spark & Kibana, followed by Kmeans clustering for result & convergence analysis.

# Real-time Video Player with LitmusRT (C, LitmusRT, SDL, FFMPEG, liblitmus, Ubuntu)

• Implements a Video player that avoids lags & ensures high quality of service by scheduling tasks in real-time using the bundle of real-time interfaces provided by LitmusRT, SDL & FFMPEG followed by visualization with tracing tools.

### Database design for a Food Delivery System (SQL)

 Analyzes the requirements of a food delivery system and proposes an efficient database design normalized in 3NF and explains each stage of the database design process & demonstrates querying the system ranging from simple to complex queries.

### **CERTIFICATION AND PUBLICATIONS**

•	Natural Language Processing with Classification and Vector Spaces.	Coursera
•	Data Science with R.	Simplilearn
•	Development with TypeScript.	Udemy
•	Unit Testing with xUnit & MOQ.	Udemy
•	Azure DevOps for Developers.	Udemy
•	Ethical Hacking and Information Security.	Internshala
•	Published articles on DNA Data Storage and Digital Forensics.	<b>University Journal</b>