### SUNIL PRASANNA BABU

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#### **EDUCATION**

### **Texas A&M University**

- Bachelor of Engineering, Computer Science
- Expected Graduation Date: Spring, 2021

## Lonestar High School - Frisco, TX

• Graduated high school with overall GPA of 3.643, Rank 35/496

#### PROJECTS & WORK EXPERIENCE

### **Peer Teacher for TAMU Engineering Department**

**August 2018- Present** 

Teaching Assistant

- Taught Freshman engineering students how to work with MATLAB and Labview in 112
- Taught Freshman engineering students how to work with Python and Stats in 102
- Guide Sophomore engineering students in lab activities for E&M in 217

#### **Marble Sorter Project**

Project Leader

February 2018 - April 2018

- Created an aid system to dispense medicines into poor countries
- For Engineering 112
- Had to work with limited space and low budget

## Machine Learning Research with Anxiao Jiang

**October 2017 - March 2018** 

- Worked with Python to create basic recurrent neural networks
- Goal to eventually create competent AI.

### **Pegasus Project with Aggie Coding Club**

August 2019 - Present

Project Manager

- Working in C++/Java to create a chess engine
- Will be uploaded to lichess.org to play as a computer bot
- Eventual goal to incorporate machine learning

# **ORGANIZATIONS & ACTIVITIES**

### **TAMU Coffee Club**

January 2019 - Present

Tech Committee Member

- Works with social media for the club
- Web design ideas

### **SLOT**

August 2019 - Present

Marketing and Logistics Committee Member

- Student Leaders of Tomorrow Conference
- Work as a facilitator leading high school juniors and seniors from around the US during the conference
- Marketing and Logistics committee works with applications and coordinates with the high schools

### **Career Closet**

August 2019 - Present

Internal Development Committee Member

- In charge of maintain records of the closet
- Leading a project to attempt a switch from Microsoft Access to Excel for record keeping.

### **COMMUNITY SERVICE**

### Big Event

January 2018 - May 2018

- College organized program to help the elderly
- Cleaned plot of land, trimmed trees

#### **Avvai Tamil School**

May 2018 - Present

- Teaches Tamil to kids that live in the DFW area
- Worked as both assistant teacher and general volunteer

#### **Career Closet**

**August 2019-Present** 

- Checks out formal wear to those that cannot afford it/do not have access to it.
- Serves all of TAMU College Station
- Work both backend(organizing and giving suits) and frontend(using access for data manipulation)

**Technical Skills:** MATLAB, NI LabView, C++, Python, Scheme, Microsoft Office (Word, PowerPoint, Excel), Basic Statistical Knowledge, Basic Java and R knowledge, Basic knowledge of Access, Took CSCE 221 – Data Structures and Algorithms

### **Intrapersonal Skills:**

- Strong work ethic
- Project and Individual Time Management
- Enjoy working with others
- Outside the box thinking.

#### Other Skills:

- Can read and speak Tamil and English fluently
- Have basic knowledge in French (could survive in France)

### **Projects Related to Data Structures:**

- Made a traffic light simulator using priority queues.
  - 3 different types of vehicles each had their own clear times
  - o Motorcycles, Cars and Trucks
  - o Lights were both motion sensor and time based
  - o If max time was reached or if queue was empty, then the lights would switch
  - After vehicles passed through, they were placed in a new list that contained their direction and type of vehicles.
  - Used OOP as well as derived classes, priority queues, vectors and C++ templates
- Made an index creator using BSTs
  - o Took in a file input of a word document
  - O Used a filter input file to take certain words out
  - Created nodes for each of the words compared the strings and inputted them into a BST based off the comparison
  - Then took in a search file and outputted the node information for the words.

#### **Hackathon Experience:**

- Diversity Hackathon
  - Created a hardcoded chatbot
  - TherapAI
  - Wanted to implement Machine Learning not enough time
  - Used Java to hardcode responses based off certain keywords
  - Things like "suicide" or "useless", the bot would recognize them and then pick from a response bank and output the response.
  - Also had initial responses to things like "hello" bot would respond with "Hello how are you".