# **NIRVAIR SANGHA**

NSS180006@utdallas.edu • LinkedIn.com/in/nirvair-sangha https://github.com/Nirvair-Sangha

#### **EDUCATION**

The University of Texas at Dallas Bachelor of Science, Computer Science

May 2022

Coursework: Machine Learning, Data Structures and Algorithm Analysis, Database Design, Software Engineering Honors: Academic Excellence Scholarship, Dean's List Overall GPA: 3.96

#### **TECHNICAL SKILLS**

- Programming Languages: Java, Python, JavaScript, C++, HTML, CSS, Octave, SQL
- Relevant Libraries: TensorFlow, Pandas, SciPy, Matplotlib, Keras
- Frameworks: React, Node.js, Express.js, Django, PostgreSQL
- **Other Skills**: GitHub, Jira (Agile Management Tool)

#### **EXPERIENCE**

**Codubee** – *Software Developer Intern;* Remote

- Created an application that predicts whether a stock will go up or down based on news article headlines
- Integrated HTML and CSS with React.js to create different components and used Enzyme and Jest to test UIs
- Implemented AWS Comprehend for processing news headlines and the Finnhub API for stock data in Node.js
- Utilized Git to work in a team of 4, Jira to implement Agile, and Express for the backend framework

#### Mathnasium: The Math Learning Center - Instructor; Murphy, TX

- Worked with 10+ different instructors to maintain the tutoring pace while switching between different students
- Assisted in creating customized learning plans tailored to meet the needs of certain students to help their growth
- Helped provide academic support to 100+ children of all ages in the community in different fields of mathematics

## ACADEMIC PROJECTS

## Flappy Bird Enhanced by AI – Python

- Created a simplified version of Flappy Bird with similar sprites, a moving background, and pipes using PyGame
- Implemented the NEAT-Python module to create evolving neural networks to predict when to jump in game

## Flight Path Calculator - Java

- Built a program that is able to calculate the best 3 flight paths based on the cost and time of the flight paths
- Implemented an Adjacency List, LinkedList, and Stack in order to hold the data for the flight paths

## **Personal Blog** – Python

- Created a personal blog with user authentication, comments, and the ability to edit and delete posts
- Utilized the Django Framework to create the backend of the blog and HTML and CSS to create the frontend

## Heart Disease Prediction System - Python

- Designed a neural network model using the Adam optimization algorithm to analyze heart disease factors
- Employed TensorFlow and Keras in order to create multiple hidden layers in Python to process the inputs

## LEADERSHIP EXPERIENCE AND ACTIVITIES

**Artificial Intelligence Society** – Active Member

## **Club of Business and Law Technology** – Public Relations Manager

• Implemented and planned 10+ events to students that promote personal development and entrepreneurship

## **ADDITIONAL INFORMATION**

**Work Eligibility:** Eligible to work in the U.S. with no restrictions (U.S. Citizen) **Volunteer Experience:** Teaching Punjabi language at the temple, Bed Start, and Feed My Starving Children

Spring 2020 – Present

Fall 2017 - Spring 2018

September 2020 – January 2021

September 2018 - June 2019