# **Jack Jones**

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### **Software Developer**

I am a recent Computer Science graduate, achieving cum laude honors. I have a strong foundation in various programming languages and a comprehensive grasp of algorithms. In team settings, I bring a collaborative spirit, effective communication, and a proven ability to lead through intricate challenges. Notably, my passion and comprehensive experience extend to computer vision, machine learning, and robotics.

I had the honor to graduate from one of the finest Computer Science schools, The University of Texas at Dallas. While attending UTD, I developed the computer vision programs for a school project drone competition sponsored by Raytheon. The computer vision programs allowed the drone to identify enemy targets and retrieve their global coordinates and velocity. Another notable school project was a pipe anomaly detection program where I created the Convolutional Neural Network CNN used for the project.

While at college I interned at Space X View as a software engineer, gaining invaluable experience in the workplace. My time at Space X View instilled a strong background and appreciation for the Agile methodology.

In addition to my education, I also earned an Azure AI Fundamentals Certification. I have also earned around 1210 points on LeetCode. Furthermore, I diligently pursued and participated in the Dallas Personal Robotics Group for the past ten years. This group has provided first-hand experience bringing various programs to work on real-world problems.

I am eager to contribute to the realm of Computer Science and technology with my fresh perspective and enthusiasm for innovation.

#### **WORK EXPERIENCE**

Space x View • Japan (Remote) • Internship • 09/2022 - 10/2022

Utilized Agile methodology and object-oriented programming to develop the company's virtual reality platform, using the Unity Library, Git, and C# scripts. Created 2 city blocks, added a new avatar, and a mini map. Added new features, and objects to allow the user to move the avatar and open doors and other various features to better interact with the objects in the virtual platform.

**Software Developer** 

#### **EDUCATION**

## Bachelor's In Computer Science

The University Of Texas At Dallas • Richardson, Texas, USA • GPA: 3.73 • 08/2019 - 12/2023

#### **CERTIFICATIONS**

#### **Azure AI Fundamentals**

Microsoft Certification

#### **AWARDS & SCHOLARSHIPS**

#### **Cum Laude**

University of Texas at Dallas

#### **PROJECTS**

## **TodoQ Application**

02/2024 - Present

Created a to-do list application using flutter. This application organizes the to-do in a FIFO format.

#### **Coffee Robot**

05/2020 - Present

Simulates manufacturing coffee by making chocolate milk and placing a cap on the cup. This will eventually create nearly any coffee through an app. Using Flutter for IOS and Android application development.

#### **6Can Robot**

DPRG • 08/2018 - Present

Competed in the DPRG 6Can fall 2018 and 2023 competition, earned 3rd place. The competition included a small room and 6 soda cans that needed to be moved out of the room. The robot used computer vision to grab cans and it used ultrasonic sensors to find the exit to the competition room. The robot now uses a rotating LiDAR sensor to find the exit and orient itself.

## **Raytheon Drone Competition**

Raytheon & University of Texas at Dallas • 09/2023 - 12/2023

Collaborated with Raytheon and fellow students of various degrees to develop a cutting-edge drone and ground robot. The drone would locate other ground robots and spray them with liquid. Specialized in developing the computer vision system of the drone utilizing linear algebra, Python, and Linux. The computer vision system would find enemy ground robots and get the global coordinates and velocity of a ground robot. Also specialized in preparing and flashing the drone's Jetson TX2 Linux computer. Led the team in organizing meetings and working with the Electrical and Computer Engineering team.

#### Slider Stack Game

University of Texas at Dallas • 09/2023 - 12/2023

Worked with a team to develop a Unity-based game where users assemble virtual sandwiches by sliding a bun and stacking ingredients to match a menu. Utilized skills and experience

gained from internship to work with the team to create the game. Created programs and algorithms to make the bun move, spawn the food in the sky, stack the food on the bun, and more

### **Pipe Anomaly Detection**

University of Texas at Dallas • 11/2023 - 12/2023

Worked with a team on data generation and creating and training a deep learning computer vision AI system that would recognize damaged pipes using a Convolutional Neural Network (CNN) deep learning algorithm. 100% success rate, on around 132 training photos. Worked with team members to create a rig to collect the necessary training images

#### Sidewalk Robot

07/2016 - 08/2019

Followed sidewalks using computer vision. Successfully tested a drive of around 2 miles while carrying a heavy payload of 6 cans and ice. The robot would follow the edge of the sidewalk using a camera and avoid people using various sensors.

#### **SKILLS**

Agile Software Development, C#, Dart, Flutter, Git, Java, Linux, Machine Learning, Microsoft Visual Studio, MIPS Architecture, NumPy, OpenCV, Prolog, Python, SciPy, Technical Vision, TensorFlow, Unity