# Jack O Jones

### [Job Title]

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[Summary]

## Work Experience

**Software Engineer Intern** Sep 2022 - Oct 2022

Space x View | Japan (Remote)

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.

## Projects

**Raytheon Drone Competition** Sep 2023 - Dec 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.

**Pipe Anomaly Detection** Nov 2023 - Dec 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

**Slider Stack Game** Sep 2023 - Dec 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

**Coffee Robot** May 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.

**Sidewalk Robot** Jul 2016 - Aug 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.

**6Can Robot** 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.

**TodoQ Application** Feb 2024 - Present

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

## Core Skills

Python, Java, Arduino, C#, C/C++, Agile, Machine Learning, TensorFlow, PyTorch, Scipy, Numpy, Computer Vision, OpenCV, Algorithms, Visual Studio, Git, Unity, Linux, MIPS, Racket, Prolog

## Education

**The University of Texas at Dallas** Aug 2019 - Dec 2023

**BS** | Computer Science

## Certificates

**Azure AI Fundamentals**

Microsoft Certification