Raghav Maddukuri

| (925)-413-6580 | raghavmaddukuri02@gmail.com | San Ramon, CA 94582 | LinkedIn | https://rmadduku.github.io

Education

University of California San Diego — San Diego, CA
Bachelor of Science in Mathematics-Computer Science — *Expected Graduation: Fall 2022*

Experience

Intern at Workday — Dublin, CA
Workday — *June 2022 - August 2022*

- *Working on Application Development using proprietary technologies*
- *Used an Anomaly detection Model to give insights on customer purchases*
- *Made use of Object Orientated Design Techniques*

UCSD Research Internship — La Jolla, CA
UCSD E4E — *March 2021 - August 2021*

- *Created the software for an autonomous underwater vehicle that utilizes the next best view algorithm for the FishSense Team as part of the UCSD E4E group.*
- *Used computer vision and pre-processing techniques to create a depth map of fish populations to monitor and measure the ocean eco-health*
- *Published a paper to IEEE OES as part of the OCEANS conference in September 2021*
  - *"FishSense: Underwater RGBD Imaging for Fish Measurement"*

Artificial Intelligence Engineer — La Jolla, CA
Triton Robotics — *Dec. 2020 - Present*

- *Specialized in data augmentation via Keras, and Tensorflow to create artificial data to address the lack of data due to Covid-19*
- *Utilized Yolo v4 neural network to create an object detection program to track, and shoot at enemy robots*

Machine Learning Engineer — La Jolla, CA
Triton RoboSub — *Oct. 2020 - Present*

- *Utilized Machine Learning models in combination with gyroscope and accelerometer data to determine checkpoints' position and distance*
- *Worked across subteams to deliver an effective Robosub competition robot*
- *Used Ros Noetic to pipeline data from depth cameras to usable data*
- *Worked with Ubuntu to leverage Linux/Unix functionality*

Projects

Solar System | *OpenGL, C++* — Jan. 2022 - Mar. 2022

- *Created a Semi Realistic Solar System in OpenGL*
- *Used C++ data structures, Bezier Curves, matrix algebra, and more to construct shapes.*

Wordle Solver | *Python, SageMath, Julia* — Oct. 2021 - Dec. 2021

- *Utilized SageMath and Julia to create a statistical approach to solve Wordle*
- *Used data processing and mathematical software to compute probabilities and output the best results.*

AI Tracks | *OpenCV, Python* — Oct. 2020 - Dec. 2020

- *Utilized OpenCV, background subtraction, and other pre-processing techniques*
- *Trained neural- networks to track a boat's latitude and longitude on the surface of the water despite occlusion*

Mask Recognizer | *Computer Vision, Machine Learning* — Dec. 2020 - Present

- *Trained and used a convolutional neural network to detect if a person was wearing a mask correctly*
- *Applied the program to a live camera to provide real-time detection of a person wearing a mask.*