Aadhya Puttur

As a dynamic, hands-on leader and software developer, I am driven by a passion for AI and machine learning development, leveraging creativity and motivation to drive innovative solutions.

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INTERNSHIP EXPERIENCE

Skydio, Boston, MA - **Autonomy Engineer Intern**

June 2023 - Sept 2023

Implemented MAVLINK system for error sensor communication on Skydio X2 drones, enhancing their ability to navigate through flight phases and promptly report critical errors.

Launched a Skydio skill through the development of the max endurance skill using Skydio API

MIT Lincoln Laboratory, Lexington, MA -**Research Technical Intern**

June 2022 - August 2022

Used tangent plane of hole boundary points to fill 290 holes in a 3D point cloud in 920 milliseconds.

May 2021 - August 2021

Proficiently assembled a coffee can radar system and devised an effective integration method to make it compatible with Arduino, demonstrating adaptability and technical expertise..

Raytheon BBN Technologies, Cambridge, MA - **Research Technical Intern**

May 2020 -August 2020

Designed a task within a hierarchical task network and conducted simulation tests on drone swarms.

June 2019 -August 2019

Established a robust communication network between Skydio's R1 drone and an external drone, enabling seamless data exchange via TCP protocols, and enhancing inter-drone collaboration.

EDUCATION

Worcester Polytechnic Institute (WPI), Worcester, MA — **Bachelor of Science, Computer Science**

May 2019-May 2023

Computer Vision (graduate), **Algorithms**: Design And Analysis (graduate), **Machine Learning**, Software Engineering, Accelerated Object-Oriented Design Concepts, Mobile Ubiquitous Computing.

SKILLS

Research, **Computer Vision**, Linux, GitHub, API documentation, Wireframing, mockup UI, and Integration Testing.

PROGRAMMING LANGUAGES

Python, Java, React, PyTorch, C++, Javafx, Javascript, Matlab, SQL, K8s, Go-Lang

CERTIFICATION

Microsoft Azure-Az900
AWS/K8s (Planning)

INTERPERSONAL SKILLS

Resident Advisor - WPI (Aug 2020 - June 2023)

TEDX Youth Finalist - Beacon Street, Boston- Nov 2018

MAHacks Organizer - Boston(March 2018 - June 2019)

AWARDS

Hackathon Winner -WPI COVID Innovation Challenge, Spectrum - June 26, 2020

Prototyped a COVID-19 PPE mask in three days for the challenge that uses UV light to kill germs.

Grand Prize Winner of MetroHacksGrand Prize Winner of MetroHacks

Issued by MetroHacks · May 2018

Tools

Jira, Git, OpenCV, Docker, Linux, Agile Methodology, Apache, AWS, Prototyping, Scrum, Figma

PROJECTS

Researcher, Quadruped Robot - *WPI Major Qualifying Project* Aug 2022 - March 2023

Developed a 2D occupancy map by skillfully calibrating RealSense cameras to accurately capture and represent the environmental depth.

Software Lead - *WPI Mass General Brigham Hospital*
March 2022 -April 2022

As part Project based learning, Led a team of 10 individuals within an Agile Scrum framework to develop a full-stack Java application tailored for Mass General Brigham Hospital employees, comprising 50 classes and 6 subsystems.

Computer Vision Grad Projects

SfM (Structure from Motion) and NeRF (Neural Radiance Fields)
Nov 2022

Successfully reduced errors through the application of classical Structure-from-Motion (SfM) techniques and effectively implemented Neural Radiance Fields (NeRF) for advanced 3D modeling.

FaceSwap -*Oct 2022*
Achieved successful development of a Face Swap feature by employing advanced techniques, including Triangulation and Thin Plate Spline, enhancing image manipulation capabilities.

Edge Detection and Image Filtering -*Sept 2022*
Implemented PB boundary detection algorithm by creating image processing tools: using Pytorch

Panorama Stitching - *Sept 2022*
Proficiently implemented feature matching and the RANSAC algorithm to calculate the homography between two images, contributing to improved image analysis and alignment.

Camera Calibration -*Sept 2022*
Significantly improved the performance of the camera system by optimizing camera parameters, resulting in an impressive 11% reduction in reprojection error.