ANTHONY LOWHUR

antlowhur@yahoo.com
vanstorm9
vanstorm9.github.io

EDUCATION

Rutgers University , New Brunswick
B.S. Computer Science 2019

Study Abroad: Tsuru University
(Feb-Aug 2017) (Japan)

SUMMARY

Actively seeking summer '18 internships focused on machine learning or computer vision research and development

PROJECTS

AI ALGORITHMIC MELODY GENERATOR
- AI analyzes music structure from song to generate original music using LSTM neural networks.
- Attempting to make full AI song composer, an AI that can generate entire songs with a series melodies.

ROAD SEGMENTATION FOR AUTONOMOUS VEHICLES
- Used histogram backprojection and morphological filtering to preform road segmentation
- Able to recognize roads in noisy environment

NOT ENOUGH ROOM TO PUT EVERYTHING, SO PLEASE CHECK OUT MY WEBSITE OR GITHUB TO SEE A LOT MORE PROJECTS!

PUBLICATIONS

Oct 2015

Dense Optical Flow Based Emotion Recognition Classifier
- 1st author paper publication on 2015
- IEEE 12th International Conference on Mobile Ad Hoc and Sensor Systems
- Anthony Lowhur (Rutgers), Mooi Choo Chuah (Lehigh)

EMPLOYMENT

RUTGERS UNIVERSITY, NEW BRUNSWICK
New Brunswick, New Jersey

Computer Vision & Machine Learning Research Assistant

Sep 2015 to Current

- Implemented trash segmentation from beach with histogram backprojection, bag of words, and SVMs for autonomous drone
- Researched in algorithms for 3D object recognition using Microsoft Kinect.
- Used convolution neural networks and segmentation algorithms for object recognition & localization for Amazon Challenge Robot.
- Led team of industrial engineering students (senior undergraduate + master graduates) for the development of the autonomous robot.
- Currently implementing segmentation and visualization algorithms on medical images.

TEXAS TECH UNIVERSITY
Lubbock, Texas

AI Research Intern

Jun 2016 to Aug 2016

- Designed a multi-agent intelligence algorithm (swarm intelligence) to surround and capture fleeing adversarial agent with team of ally agents.
- Implemented planning and diagnostics algorithms using Answer Set Programming (ASP)
- Made various scripts for data extraction and generation.
- Abstract was accepted and will be presented to the National Conference On Undergraduate Research (NCUR 2017) at the Memphis, Tennessee.

LEHIGH UNIVERSITY
Bethlehem, Pennsylvania

Computer Vision & Machine Learning Research Intern

Jun 2015 to Aug 2015

- Worked on an emotion recognition program on a robot by using dense optical flow and SVMs.
- Classifier was robust classifier resistant to unique facial appearance and poor lighting.
- Research paper presented and published as 1st author at the 2015 IEEE 12th International Conference (MASS) workshop in Dallas, Texas.

FREELANCE WORK
Freelance Work

Sep 2016 to Current

- Worked for various startups as a freelancer designing programs and products that utilize computer vision and machine learning algorithms.
- Have created multiple programs including sport ball trackers, clay pigeon tracker & hit/miss recognizer, video panorama generation algorithms, and recommendation engines.

SKILLS

LANGUAGES: Python, C, C++, Java, Javascript, SQL, PHP, C#, MATLAB, HTML, CSS, Prolog, ASP Sparc
PLATFORMS: OpenCV, Sklearn, Pybrain, Tensorflow, ROS + Gazebo, Unity3D, Vuforia, Keras
HARDWARE: Leap Motion, Microsoft Kinect, Arduino, Raspberry Pi