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CAREER OBJECTIVE

Seeking a position as Software Engineer, Autonomous Driving.

EDUCATION

Penn State University, UP(Aug. 2013-- Dec. 2017)

B.S. in Science, Computational Statistics
Minor in Computer Science

KNOWLEDGE

Deep Learning
Computer Vision
Computer Graphics
Data Mining
Linear Algebra, Calculus
Parallel Computing
AR/VR Product Dev
Robotics System
Perception Sensors

SKILLS

C/C++
C#(Unity)
Java
Python
Matlab
Javascript
MySQL
R
SAS

WORK EXPERIENCE

(Jan. 2017 -- Dec. 2017)

Software Team- Penn State Augmented Reality Lab

- Work on Microsoft Hololens, HTC Vive to quickly develop demos.
(*RGB-D camera, Infrared Sensors, C#, C++, Java, JavaScript, Python*)

(May. 2016 -- Aug. 2016)

Software Engineer Intern - Journey Tech, Inc. Beijing

- Collaborate with the optics team to continuously improve optical solutions for AR glasses development kit.
- Develop and provide support for VR gaming demos.
(*C++, OpenCV, C#, Unity3D, Perception Sensors*)

(Jan. 2016 -- May. 2016)

Computer Vision Team - PSU Unmanned Aerial Systems

- Develop and test the Computer Vision algorithms for drones.
- Data collection and analysis for ground target detection.
(*C++, C, Python, Shell Scripting, OpenCV, Odroid XU3, FPGA Board*)

(Aug. 2015 -- Jan. 2016)

Embedded System Team - PSU Unmanned Aerial Systems

- Work with sensor technologies such as LiDAR, IMU, Radar, 2D laser scanning rangefinder.
(*C++, C, SLAM, Kalman Filter*)

LEADERSHIP EXPERIENCE

(Aug. 2016 -- Aug. 2017)

Lead Software Engineer - Penn State AR/VR Lab

(Jan 2016 -- May. 2016)

Lead Data Engineer - PSU Unmanned Aerial Systems

PROJECTS

1. Udacity Self-Driving Car Engineer Nanodegree

- **Traffic Sign Classifier** : Use CNN and Load project on AWS EC2.
- **Behavioral Cloning** : Apply LeNet and Nvidia CNN model and simulated in Autonomous Mode.
- **Advanced Lane Finding** : Use OpenCV for camera calibration, distortion coefficient, generate undistorted, unwarped frames.
- **Vehicle Detection, Tracking** : Perform HOG feature extraction on labeled training set, and train a Linear SVM classifier.

2. ExplorAR: Interactive Mixed Reality Games for Location Based Modules (Accepted in CHI 2018)

My responsibilities in the team:

- Use ARcore SDK to provide new experience to explore the world with mixed reality 3D objects.
- Embed the real-time GPS with built-in mini map in game to guide the user to destinations in different locations.

3. AI Based Multidimensional Data Visualization On Augmented/Virtual Reality Platforms (2017)

My responsibilities in the team:

- Work on cross platforms including Microsoft Hololens, HTC Vive.
- Enable users to retrieve visualized data and interact with each feature by gesture and voice commands.

4. International Aerial Robotics Competition (2016)

My responsibilities in the team:

- Develop and test the Computer Vision algorithms for aerial vehicle tasks.
- Calibrate the camera lens' angle of view(AOV), and calculated the maximum field of view for corresponding cases.

5. ETWIS: Voice-Command Driven VR Game(2016)

My responsibilities in the team:

- Design the multiplayer game mode with Photon Engine.
- Utilize open-source Speech Recognition package, CMU Sphinx4.

6. Projection Mapping with Kinect (2015)

My responsibilities in the team:

- Programm in Java with Kinect to detect the human gestures and movements.

ACHIEVEMENTS

- * 2015 Code PSU, 3rd Prize
- * 2016 Reality Virtually MIT Hackathon, Top 10 Finalist
- * 2017 USens Developer Challenge, Top 10 Finalist
- *2018 explorAR accepted for inclusion in CHI 2018

RELATED COURSEWORK

Robotics: Perception - University of Pennsylvania
(Earned Certificate on Coursera)

Neural Networks and Deep Learning - Deep Learning.AI
(Earned Certificate on Coursera)

Udacity Self-Driving Car Engineer Nanodegree(Ongoing)