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CAREER OBJECTIVE

Seeking a position as Software Engineer(Perception), Autonomous Driving.

EDUCATION

Penn State University, UP(Aug. 2013-- Dec. 2017)
B.S. in Science, Computer Statistics
Minor in Computational 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 the AWS EC2.
 - **Behavioral Cloning** : Apply LeNet and Nvidia CNN model and simulated in Autonomous Mode.
 - **Advanced Lane Finding** : Use OpenCV to compute camera calibration and distortion coefficient, generate undistored, unwarped frames.
 - **Vehicle Detection and 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.
 - Calibrated 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:
 - Designed 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:
 - Programmed 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)