YIFAN(Vanessa) **XU**

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EDUCATION

University of California, San Diego Sept. 2017 – Jun. 2019
Master of Electrical and Computer Engineering **GPA**: 3.587
Major: Intelligent Systems, Robotics & Control
Course: Autonomous Vehicle, SLAM, Virtual Reality, Machine Learning, Computer Vision, Data Analysis, Stochastic Processes in Dynamic Systems, 3D User Interface

SKILL

Languages: Python, C#, Matlab, Java, C++ **Other**: Unity, Linux, ROS

INTERNSHIP EXPERIENCE

Nanome Inc. **Software Dev. Intern** **04/2019 – 06/2019**
CalcFlow – A **Virtual Reality** software visualizes calculus.
- Visualize the Fundamental Theorem of Linear Algebra in VR by using **Unity** and **Oculus** (**C#**)

JD.com American Technologies Corporation **R&D Intern** **06/2018 – 09/2018**
Warehousing intelligent freight **Automated Guide Vehicle** (based on **Linux** system)
- Developed a map drawing software using **C#** which improved work efficiency.
- Camera's field of view and accuracy test. Data analysis by **Python.**
- Localization accuracy test of vehicles by using Vicon.
- Tested state-of-the-art computer vision and machine learning algorithms for mapping, localization, obstacle detection and so on.

PROJECT EXPERIENCES

Virtual Reality Game RoboDash in Hackathon (C#) **04/2019 – 04/2019**
- Buttons-free VR games. Avoid obstacles, break walls, hit robots and throw away Captain America shield by body gestures capture. **Runners up Award!**

Simultaneous Localization and Mapping (Python) **01/2019 – 03/2019**
- Implement simultaneous localization and mapping using odometry, inertial, 2D laser range and RGBD measurements from a differential-drive robot.

3D User Interaction and Interface Design Based on Unity (C#) **01/2019 – 03/2019**
- Design **Virtual Reality** games involving 3d interaction devices like Oculus Rift VR HMD, Touch controllers and the Leap Motion gesture tracker.

Image Segmentation Based on Statistical Learning (Python) **09/2018 – 01/2019**
- Implemented different methods to train a model like Multivariate Gaussians, Logistics Regression and Expectation Maximization Algorithm. Then found out the Bounding boxes.

Ship Detection via Semantic Segmentation (Python) **09/2018 – 12/2018**
- We implemented Fully Convolutional Networks for Semantic Segmentation using both VGGNet and AlexNet as internal network architectures.

Computer Vision for Feature Detection and Motion Interpretation **09/2018 – 12/2018**
- Found similar features for an object in photos shoot from different angles. Interpret the motion of an object on the basis of the changing images.