YIFAN(Vanessa) **XU**

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EDUCATION

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

SKILL

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

INTERNSHIP EXPERIENCE

04/2018 – Now **Software Dev. Intern** **Nanome Inc.**
CalcFlow – A **Virtual Reality** software visualizes calculus.

- Visualize the Fundamental Theorem of Linear Algebra in VR by using **Unity** and **Oculus** (**C Sharp**)

06/2018 – 09/2018 **R&D Intern** **JD.com American Technologies Corporation**
Warehousing intelligent freight **Automated Guide Vehicle** (based on **Linux** system)

- Developed a map drawing software using **C Sharp** 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

04/2019 – 04/2019 **Virtual Reality Game RoboDash in Hackathon (C Sharp)**

- Buttons-free VR games. Avoid obstacles, break walls, hit robots and throw away Captain America shield by body gestures capture. **Runners up Award!**

01/2019 – 03/2019 **Simultaneous Localization and Mapping (Python)**

- Implement simultaneous localization and mapping using odometry, inertial, 2D laser range and RGBD measurements from a differential-drive robot.

01/2019 – 03/2019 **3D User Interaction and Interface Design Based on Unity (C Sharp)**

- Design **Virtual Reality** games involving 3d interaction devices like Oculus Rift VR HMD, Touch controllers and the Leap Motion gesture tracker.

09/2018 – 01/2019 **Image Segmentation Based on Statistical Learning (Python)**

- Implemented different methods to train a model like Multivariate Gaussians, Logistics Regression and Expectation Maximization Algorithm. Then found out the Bounding boxes.

09/2018 – 12/2018 **Ship Detection via Semantic Segmentation (Python)**

- We implemented Fully Convolutional Networks for Semantic Segmentation using both VGGNet and AlexNet as internal network architectures.

09/2018 – 12/2018 **Computer Vision for Feature Detection and Motion Interpretation**

- 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.