Rae Jeong

Mechatronics

Rae Jeong

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Skills

Robot Control using **C++/MATLAB/SIMULINK**

Reinforcement/Deep Learning projects using **Tensorflow/Python**

Robot Software using **ROS**

Experience

Fetch Robotics / Engineering Intern
January 2016 - December 2016, San Jose, California, United States

Designed three degree of actuation mechanism for robotic application.

Electromechanical design and analysis.

Waterloo Autonomous Vehicles Lab / Research Assistant
September 2015 - December 2015, Waterloo, Ontario, Canada

Gimble implementation and testing for drone research.

Mechanical design of gimbal testing and calibration apparatus.

Writing ROS test scripts for gimbal testing.

MakeLab / Robotics R&D Engineering Intern
May 2015 - September 2015, Toronto, Ontario, Canada

Research and development of robotic arm design.

Using ROS as framework and microcontroller for modular joint control.

Modular robotic manipulator design with 4DOF, 1kg payload and 1 meter reach.

Projects

Jumping Robot / Controls

Untethered jumping robot using reaction wheels.

State space control design using MATLAB Simulations.

Crawler/ Reinforcement Learning

Simple approximate Q learning to solve locomotion/pacman.

Implementing Q learning software from scratch.

Modular Robotic Arm Project / Mechatronics

Project to create an affordable and functional 4DOF robotic arm.

Modular actuator design and joint control.

Education

University of Waterloo / Third Year Mechatronics Engineering B.A.Sc
September 2013 - April 2018, Waterloo, Ontario, Canada